



SEQUENCE LISTING

RECEIVED
JUN 09 2003
TECH CENTER 1000/2000

<110> Lamb, Jonathan R
Dallman, Margaret J
Hoyne, Gerard F

<120> Notch

<130> 674525-2001

<140> 09/310,685

<141> 1999-05-04

<150> GB 9623236.8

<151> 1996-11-07

<150> GB 9715674.9

<151> 1997-07-24

<150> GB 9719350.2

<151> 1997-09-11

<150> PCT/GB97/03058

<151> 1997-11-06

<160> 32

<170> PatentIn version 3.2

<210> 1

<211> 2892

<212> DNA

<213> Drosophila sp.

<400> 1

gaattcggag gaattattca aaacataaac acaataaaca atttgagtag ttgccgcaca 60
cacacacaca cacagcccggt ggattattac actaaaagcg acactcaatc caaaaaatca 120
gcaacaaaaa catcaataaa catgcattgg attaaatgtt tattaacagc attcatttgc 180
ttcacagtca tcgtgcaggt tcacagttcc ggcagctttg agttgcgcct gaagtacttc 240
agcaacgatc acggggcggga caacgaggggt cgctgctgca gcggggagtc ggacggagcg 300
acggggcaagt gcttgggcag ctgcaagacg cggtttcgcg tctgctaaa gcactaccag 360
gccaccatcg acaccacctc ccagtgcacc tacggggagc tgatcacgcc cattctcggc 420
gagaactcgg tcaatctgac cgacgcccag cgcttcaga acaagggtt cacgaatccc 480
atccagttcc ctttctcgtt ctcatggccg ggtaccttct cgctgatcgt cgaggcctgg 540
catgatacga acaatagcgg caatgcgcga accaacaagc tcctcatcca gcgactcttg 600
gtgcagcagg tactggaggt gtcctccgaa tggaagacga acaagtcgga atcgagtag 660

acgtcgctgg agtacgattt ccgtgtcacc tgcgatctca actactacgg atccggctgt 720
 gccaaagttct gccggccccg cgacgattca tttggacact cgacttgctc ggagacgggc 780
 gaaattatct gtttgaccgg atggcagggc gattactgtc acatacccaa atgcgccaaa 840
 ggctgtgaac atggacattg cgacaaacgc aatcaatgcg tttgccaaact gggctggaag 900
 ggagccttgt gcaacgagtg cgttctggaa ccgaactgca tccatggcac ctgcaacaaa 960
 ccctggactt gcatctgcaa cgaggggttg ggaggcttgt actgcaacca ggatctgaac 1020
 tactgcacca accacagacc ctgcaagaat ggcggaacct gcttcaacac cggcgagggg 1080
 ttgtacacat gcaaatacgc tccaggatac agtggatgat attgcgaaaa tgagatctac 1140
 tcctgcgatg ccgatgtcaa tccctgccag aatgggtggt cctgcatcga tgagccgcac 1200
 aaaaaaacg gctacaagtg tcattgcgcc aacggctgga gcggaagat gtgcgaggag 1260
 aaagtgtca cgtgttcgga caaacctgt catcaggga tctgccgcaa cgttcgtcct 1320
 ggcttgggaa gcaaggtca gggctaccag tgcgaatgtc ccattggcta cagcggaccc 1380
 aactgcgatc tccagctgga caactgcagt ccgaatccat gcataaacgg tggaagctgt 1440
 cagccgagcg gaaagtgtat ttgccagcg ggattttcgg gaacgagatg cgagaccaac 1500
 attgacgatt gtcttggtcca ccagtgcgag aacggaggca cctgcataga tatggtcaac 1560
 caatatcgct gccaatgcgt tcccggtttc catggcacc actgtagtag caaagttgac 1620
 ttgtgcctca tcagaccgtg tgccaatgga ggaacctgct tgaatctcaa caacgattac 1680
 cagtgcacct gtctgctggg atttactggc aaggattgct ctgtggacat cgatgagtgc 1740
 agcagtggac cctgtcataa cggcggcact tgcataacc gcgtcaattc gttcgaatgc 1800
 gtgtgtgcca atggtttcag gggcaagcag tgcgatgagg agtcctacga ttcggtgacc 1860
 ttcgatgccc accaatatgg agcgaccaca caagcgagag ccgatggttt gaccaatgcc 1920
 caggtagtcc taattgctgt tttctccgtt gcgatgcctt tgggtggcgg tattgcggcg 1980
 tgcgtggtct tctgcatgaa gcgcaagcgt aagcgtgctc aggaaaagga cgacgcggag 2040
 gccaggaagc agaacgaaca gaatgcggtg gccacaatgc atcacaatgg cagtgggggtg 2100
 ggtgtagctt tggcttcagc ctctctgggc ggcaaaactg gcagcaacag cggcttcacc 2160
 ttcgatggcg gcaaccgaa tatcatcaaa aacacctggg acaagtcggt caacaacatt 2220
 tgtgcctcag cagcagcagc ggcggcggcg gcagcagcgg cggacgagtg tctcatgtac 2280
 ggcggatatg tggcctcggg ggcggataac aacaatgcc actcatactt ttgtgtggct 2340
 ccgtacaaa gagccaagtc gcaaaagcaa ctcaacaccg atcccacgt catgcaccgc 2400

H₂

gggttcgccgg caggcagctc agccaagggg gcgtctggcg gaggaccggg agcggcggag 2460
 ggcaagagga tctctgtttt aggcgagggg tcctactgta gccagcggtg gccctcgttg 2520
 gcggcgccgg gagtggccgg agcctgttca tcccagctaa tggtgcagc ttcggcagcg 2580
 ggcagcggag cggggacggc gcaacagcag cgatccgtgg tctgcggcac tccgcatatg 2640
 taactccaaa aatccggaag ggctcctggg aaatccggag aaatccgcat ggaggagctg 2700
 acagcacata cacaaagaaa agactggggtt gggttcaaaa tgtgagagag acgccaaaat 2760
 gttgttggtt attgaagcag tttagtcgtc acgaaaaatg aaaaatctgt aacaggcata 2820
 actcgtaaac tccctaaaaa atttgtatag taattagcaa agctgtgacc cagccgtttc 2880
 gatcccgaaat tc 2892

<210> 2
 <211> 833
 <212> PRT
 <213> Drosophila sp.

<400> 2

Met His Trp Ile Lys Cys Leu Leu Thr Ala Phe Ile Cys Phe Thr Val
 1 5 10 15

Ile Val Gln Val His Ser Ser Gly Ser Phe Glu Leu Arg Leu Lys Tyr
 20 25 30

Phe Ser Asn Asp His Gly Arg Asp Asn Glu Gly Arg Cys Cys Ser Gly
 35 40 45

Glu Ser Asp Gly Ala Thr Gly Lys Cys Leu Gly Ser Cys Lys Thr Arg
 50 55 60

Phe Arg Val Cys Leu Lys His Tyr Gln Ala Thr Ile Asp Thr Thr Ser
 65 70 75 80

Gln Cys Thr Tyr Gly Asp Val Ile Thr Pro Ile Leu Gly Glu Asn Ser
 85 90 95

Val Asn Leu Thr Asp Ala Gln Arg Phe Gln Asn Lys Gly Phe Thr Asn
 100 105 110

Pro Ile Gln Phe Pro Phe Ser Phe Ser Trp Pro Gly Thr Phe Ser Leu
 115 120 125

Ile Val Glu Ala Trp His Asp Thr Asn Asn Ser Gly Asn Ala Arg Thr
 130 135 140

Asn Lys Leu Leu Ile Gln Arg Leu Leu Val Gln Gln Val Leu Glu Val
 145 150 155 160

Ser Ser Glu Trp Lys Thr Asn Lys Ser Glu Ser Gln Tyr Thr Ser Leu
 165 170 175

Glu Tyr Asp Phe Arg Val Thr Cys Asp Leu Asn Tyr Tyr Gly Ser Gly
 180 185 190

Cys Ala Lys Phe Cys Arg Pro Arg Asp Asp Ser Phe Gly His Ser Thr
 195 200 205

Cys Ser Glu Thr Gly Glu Ile Ile Cys Leu Thr Gly Trp Gln Gly Asp
 210 215 220

Tyr Cys His Ile Pro Lys Cys Ala Lys Gly Cys Glu His Gly His Cys
 225 230 235 240

H₂

Asp Lys Arg Asn Gln Cys Val Cys Gln Leu Gly Trp Lys Gly Ala Leu
 245 250 255

Cys Asn Glu Cys Val Leu Glu Pro Asn Cys Ile His Gly Thr Cys Asn
 260 265 270

Lys Pro Trp Thr Cys Ile Cys Asn Glu Gly Trp Gly Gly Leu Tyr Cys
 275 280 285

Asn Gln Asp Leu Asn Tyr Cys Thr Asn His Arg Pro Cys Lys Asn Gly
 290 295 300

Gly Thr Cys Phe Asn Thr Gly Glu Gly Leu Tyr Thr Cys Lys Cys Ala
 305 310 315 320

Pro Gly Tyr Ser Gly Asp Asp Cys Glu Asn Glu Ile Tyr Ser Cys Asp
 325 330 335

Ala Asp Val Asn Pro Cys Gln Asn Gly Gly Thr Cys Ile Asp Glu Pro
 340 345 350

His Thr Lys Thr Gly Tyr Lys Cys His Cys Ala Asn Gly Trp Ser Gly
355 360 365

Lys Met Cys Glu Glu Lys Val Leu Thr Cys Ser Asp Lys Pro Cys His
370 375 380

Gln Gly Ile Cys Arg Asn Val Arg Pro Gly Leu Gly Ser Lys Gly Gln
385 390 395 400

Gly Tyr Gln Cys Glu Cys Pro Ile Gly Tyr Ser Gly Pro Asn Cys Asp
405 410 415

Leu Gln Leu Asp Asn Cys Ser Pro Asn Pro Cys Ile Asn Gly Gly Ser
420 425 430

Cys Gln Pro Ser Gly Lys Cys Ile Cys Pro Ala Gly Phe Ser Gly Thr
435 440 445

Arg Cys Glu Thr Asn Ile Asp Asp Cys Leu Gly His Gln Cys Glu Asn
450 455 460

H₂

Gly Gly Thr Cys Ile Asp Met Val Asn Gln Tyr Arg Cys Gln Cys Val
465 470 475 480

Pro Gly Phe His Gly Thr His Cys Ser Ser Lys Val Asp Leu Cys Leu
485 490 495

Ile Arg Pro Cys Ala Asn Gly Gly Thr Cys Leu Asn Leu Asn Asn Asp
500 505 510

Tyr Gln Cys Thr Cys Arg Ala Gly Phe Thr Gly Lys Asp Cys Ser Val
515 520 525

Asp Ile Asp Glu Cys Ser Ser Gly Pro Cys His Asn Gly Gly Thr Cys
530 535 540

Met Asn Arg Val Asn Ser Phe Glu Cys Val Cys Ala Asn Gly Phe Arg
545 550 555 560

Gly Lys Gln Cys Asp Glu Glu Ser Tyr Asp Ser Val Thr Phe Asp Ala
565 570 575

His Gln Tyr Gly Ala Thr Thr Gln Ala Arg Ala Asp Gly Leu Thr Asn
580 585 590

Ala Gln Val Val Leu Ile Ala Val Phe Ser Val Ala Met Pro Leu Val
595 600 605

Ala Val Ile Ala Ala Cys Val Val Phe Cys Met Lys Arg Lys Arg Lys
610 615 620

Arg Ala Gln Glu Lys Asp Asp Ala Glu Ala Arg Lys Gln Asn Glu Gln
625 630 635 640

Asn Ala Val Ala Thr Met His His Asn Gly Ser Gly Val Gly Val Ala
645 650 655

Leu Ala Ser Ala Ser Leu Gly Gly Lys Thr Gly Ser Asn Ser Gly Leu
660 665 670

Thr Phe Asp Gly Gly Asn Pro Asn Ile Ile Lys Asn Thr Trp Asp Lys
675 680 685

Ser Val Asn Asn Ile Cys Ala Ser Ala Ala Ala Ala Ala Ala Ala Ala
690 695 700

Ala Ala Ala Asp Glu Cys Leu Met Tyr Gly Gly Tyr Val Ala Ser Val
705 710 715 720

Ala Asp Asn Asn Asn Ala Asn Ser Tyr Phe Cys Val Ala Pro Leu Gln
725 730 735

Arg Ala Lys Ser Gln Lys Gln Leu Asn Thr Asp Pro Thr Leu Met His
740 745 750

Arg Gly Ser Pro Ala Gly Ser Ser Ala Lys Gly Ala Ser Gly Gly Gly
755 760 765

Pro Gly Ala Ala Glu Gly Lys Arg Ile Ser Val Leu Gly Glu Gly Ser
770 775 780

Tyr Cys Ser Gln Arg Trp Pro Ser Leu Ala Ala Ala Gly Val Ala Gly
785 790 795 800

Ala Cys Ser Ser Gln Leu Met Ala Ala Ala Ser Ala Ala Gly Ser Gly

805

810

815

Ala Gly Thr Ala Gln Gln Gln Arg Ser Val Val Cys Gly Thr Pro His
 820 825 830

Met

<210> 3
 <211> 6464
 <212> DNA
 <213> Homo sapiens

<400> 3
 gaattcccct cccccctttt tccatgcagc tgatctaaaa gggaataaaa ggctgcgcat 60
 aatcataata ataaaagaag gggagcgcga gagaaggaaa gaaagccggg aggtggaaga 120
 ggagggggag cgtctcaaag aagcgatcag aataataaaa ggaggccggg ctctttgcct 180
 tctggaacgg gccgctcttg aaagggcttt tgaaaagtgg tgttgttttc cagtcgtgca 240
 tgctccaatc ggcggagtat attagagccg ggacgcggcc gcaggggcag cggcgacggc 300
 agcaccggcg gcagcaccag cgccaacagc agcggcggcg tcccagtgcc ccgcggcggc 360
 gcgcgcagcg atgcgttccc cacggacacg cggccgggtcc gggcgccccc taagcctcct 420
 gctgcgccctg ctctgtgccc tgcgagccaa ggtgtgtggg gcctcgggtc agttcgagtt 480
 ggagatcctg tccatgcaga acgtgaacgg ggagctgcag aacgggaact gctgcggcgg 540
 cgccccgaac ccgggagacc gcaagtgcac ccgcgacgag tgtgacacat acttcaaagt 600
 gtgcctcaag gagtatcagt cccgcgtcac ggccgggggg ccctgcagct tcggctcagg 660
 gtccaagcct gtcacgggg gcaacacctt caacctcaag gccagccgcg gcaacgaccc 720
 gaaccgcacg gtgctgcctt tcagtttcgc ctggccgagg tcctatacgt tgcttggtga 780
 ggcgtgggat tccagtaatg acaccgttca acctgacagt attattgaaa aggcttctca 840
 ctcgggcatg atcaacccca gccggcagtg gcagacgctg aagcagaaca cgggcgttgc 900
 ccactttgag tatcagatcc gcgtgacctg tgatgactac tactatggct ttggctgtaa 960
 taagttctgc cgccccagag atgacttctt tggacactat gcctgtgacc agaatggcaa 1020
 caaaacttgc atggaaggct ggatggggccc cgaatgtaac agagctatct gccgacaagg 1080
 ctgcagtcct aagcatgggt cttgcaaact ccaggtgac tgcaggtgcc agtacggctg 1140
 gcaaggcctg tactgtgata agtgcacccc acaccggga tgcgtccacg gcatctgtaa 1200

tgagccctgg cagtgcctct gtgagaccaa ctggggcggc cagctctgtg acaaagatct 1260
 caattactgt gggactcatc agccgtgtct caacggggga acttgttagca acacaggccc 1320
 tgacaaatat cagtgttcct gccctgaggg gtattcagga cccaactgtg aaattgctga 1380
 gcacgcctgc ctctctgac cctgtcacia cagaggcagc tgtaaggaga cctccctggg 1440
 ctttgagtgt gagtgttccc caggctggac cggccccaca tgctctacia acattgatga 1500
 ctgttctcct aataactgtt cccacggggg cacctgccag gacctgggta acggatttaa 1560
 gtgtgtgtgc cccccacagt ggactgggaa aacgtgccag ttagatgcaa atgaatgtga 1620
 ggccaaacct tgtgtaaacg ccaaactctg taagaatctc attgccagct actactgcga 1680
 ctgtcttccc ggctggatgg gtcagaattg tgacataaat attaatact gccttggcca 1740
 gtgtcagaat gacgcctcct gtcgggattt ggtaaatggg tatcgctgta tctgtccacc 1800
 tggctatgca ggcgatcact gtgagagaga catcgatgaa tgtgccagca acccctgttt 1860
 gaatgggggt cactgtcaga atgaaatcaa cagattccag tgtctgtgtc ccaactggttt 1920
 ctctggaaac ctctgtcagc tggacatcga ttattgtgag cctaatacct gccagaacgg 1980
 tgcccagtgc tacaaccgtg ccagtgacta tttctgcaag tgccccgagg actatgaggg 2040
 caagaactgc tcacacctga aagaccactg ccgcacgacc ccctgtgaag tgattgacag 2100
 ctgcacagtg gccatggctt ccaacgacac acctgaaggg gtgcgggata tttcctccaa 2160
 cgtctgtggt cctcacggga agtgcaagag tcagtcggga ggcaaattca cctgtgactg 2220
 taacaaaggc ttcacgggaa catactgcca tgaaaatatt aatgactgtg agagcaaccc 2280
 ttgtagaaac ggtggcactt gcatcgatgg tgtcaactcc tacaagtga tctgtagtga 2340
 cggctgggag ggggcctact gtgaaaccaa tattaatgac tgcagccaga acccctgcca 2400
 caatgggggc acgtgtcgcg acctggtcaa tgacttctac tgtgactgta aaaatgggtg 2460
 gaaaggaaag acctgccact cacgtgacag tcagtgtgat gaggccacgt gcaacaacgg 2520
 tggcacctgc tatgatgagg gggatgcttt taagtgcagc tgcctggcg gctgggaagg 2580
 aacaacctgt aacatagccc gaaacagtag ctgcctgccc aaccctgcc ataatggggg 2640
 cacatgtgtg gtcaacggcg agtcctttac gtgcgtctgc aaggaaggct gggaggggcc 2700
 catctgtgct cagaatacca atgactgcag cctcatccc tgttacaaca gcggcacctg 2760
 tgtggatgga gacaactggg accggtgcga atgtgccccg ggttttgctg ggcccgactg 2820
 cagaataaac atcaatgaat gccagtcttc acctgtgtgc tttggagcga cctgtgtgga 2880
 tgagatcaat ggctaccggg gtgtctgccc tccaggcac agtgggtgcca agtgccagga 2940

agtttcaggg agaccttgca tcaccatggg gagtgtgata ccagatgggg ccaaattggga 3000
 tgatgactgt aatacctgcc agtgcctgaa tggacggatc gcctgctcaa aggtctgggtg 3060
 tggccctcga ccttgctgc tccacaaagg gcacagcgag tgccccagcg ggcagagctg 3120
 catcccatc ctggacgacc agtgcttcgt ccaccctgc actggtgtgg gcgagtgtcg 3180
 gtcttccagt ctccagccgg tgaagacaaa gtgcacctct gactcctatt accaggataa 3240
 ctgtgcgaac atcacattta cctttaacaa ggagatgatg tcaccaggtc ttactacgga 3300
 gcacatttgc agtgaattga ggaatttgaa tattttgaag aatgtttccg ctgaatatc 3360
 aatctacatc gcttgcgagc cttccccttc agcgaacaat gaaatacatg tggccatttc 3420
 tgctgaagat atacgggatg atgggaaccc gatcaaggaa atcactgaca aaataatcga 3480
 tcttgttact aaacgtgatg gaaacagctc gctgattgct gccgttgaag aagtaagagt 3540
 tcagaggcgg cctctgaaga acagaacaga tttccttggt cccttgctga gctctgtctt 3600
 aactgtggct tggatctgtt gcttgggtgac ggccttctac tgggtgcctgc ggaagcggcg 3660
 gaagccgggc agccacacac actcagcctc tgaggacaac accaccaaca acgtgcggga 3720
 gcagctgaac cagatcaaaa accccattga gaaacatggg gccaacacgg tccccatcaa 3780
 ggattacgag aacaagaact ccaaaatgtc taaaataagg acacacaatt ctgaagtaga 3840
 agaggacgac atggacaaac accagcagaa agcccggttt gccaaagcagc cggcgtagac 3900
 gctggtagac agagaagaga agcccccaa cggcacgccc aaaaaacacc caaactggac 3960
 aaacaaacag gacaacagag acttggaag tgcccagagc ttaaaccgaa tggagtacat 4020
 cgtatagcag accgcgggca ctgccgccgc taggtagagt ctgagggctt gtagttcttt 4080
 aaactgtcgt gtcatactcg agtctgaggc cgcttgctgac ttagaatccc tgtgttaatt 4140
 tagtttgaca agctggctta cactggcaat ggtagttctg tggttggctg ggaaatcgag 4200
 tggcgcacat cacagctatg caaaaagcta gtcaacagta cccttggttg tgtgtcccct 4260
 tgcagccgac acggtctcgg atcaggctcc caggagctgc ccagccccct ggtactttga 4320
 gctcccactt ctgccagatg tctaattggtg atgcagtctt agatcatagt tttatttata 4380
 tttattgact cttgagttgt ttttgtatat tggttttatg atgacgtaca agtagttctg 4440
 tatttgaaag tgcctttgca gctcagaacc acagcaacga tcacaaatga ctttattatt 4500
 tatttttttt aattgtattt ttgttggttg gggaggggag actttgatgt cagcagttgc 4560
 tggtaaaatg aagaatttaa agaaaaaatg tccaaaagta gaactttgta tagttatgta 4620

H
2

aataattctt ttttattaat cactgtgtat atttgattta ttaacttaat aatcaagagc 4680
cttaaaacat cattcctttt tatttatatg tatgtgttta gaattgaagg tttttgatag 4740
cattgtaagc gtatggcttt atttttttga actcttctca ttacttggtg cctataagcc 4800
aaaaaggaaa ggggtgtttg aaaatagttt attttaaaac aataggatgg gctacacgta 4860
cataggtaaa taatagcacc gtactgggta tgatgatgaa aataactgga aacttgaaaag 4920
cttgtggtaa tggcagataa agatgggtca cctgggaaat taaaacttga atgggtgtac 4980
agaaaagcac agagtggaaat gcacatcaat gacagtaagg gagttagttc taggaacagc 5040
tcctgaacag taagattccc gcaatagtct ccgcctcggt cgtctatggt atgcatccca 5100
ttcattttct tcttctgatt attgtcatct tcccccttgc caaatgggca gttattgttt 5160
caggagaga agctgctcat tggccaatca ttctgggtg cagtgtcca tcggattcta 5220
catgtccaac aaggcatgtc tggatgatgc aatgtctgtc tgacccccgg aattccgtgc 5280
agagacaaca ttctagacag atatacactt tttattatta acaaactttg gccacaacct 5340
ttgatgtata aattgccgga tttccccagt cctttcattg tggctttgga caggagcagg 5400
ctcacttgtc tgcttcaggc tgcctttctc ttgggttgca cctcagttct tacttattta 5460
tttattttga gtggagcata ggggcctctt ccaaaatggg tagagctcag gggctttctt 5520
attgaaatgg tcacatgata aaaacgggct gaaaaaggag agttccagga gaaaagccca 5580
gaaaaggccc ctccctcagaa gacagccttt aagcctcttg cttactgaag gaagccccac 5640
cttctagcac tgaggccggg tctgatcttc cagaggagt ggaggagtcc atgagaatgg 5700
ccaccattct tgcttgctgc tgctgatgtt gcagttttga gagaacagcg ggatccttgt 5760
tgtcctctag agacttgagt ctgtcactga cattttttca gttcctttgc tcatagacca 5820
tacgaggaat tagtgatgtg tcagttgaga gttcacaatc tcattgttca ttttaattcac 5880
tttaaagtgt tcaattttctg tgtgagtaac ctgtaaaaga cacctttcca gaagagtttt 5940
gccgtctggt tgaaaaaaaaa atctttataa acttttctaa gtatctggat ttggattcct 6000
tatttgagga gaaaatgtac cctgtctcca ccaaaaatac aaaaattagc caggcttggt 6060
ggtgcacacc ggtaatccca gcaactctgg agactaaggc aggaagaatc gcttgaccca 6120
ggagggctga ggctacaatg agttgaaacc gcgccactgc actccagcct gggcgacagt 6180
gcgaggccct gtctcaaaaa taaaataaaa taaataaata aattagccag atactgtgtg 6240
cacgcctgca gtcccagcta ttctggaagc tgaggtggga agatgggtta gcctgagagg 6300
acaaagctgc agtgagtcac gtttgcacat ctgcactcca gcctgggtga cagagcaaga 6360

ccctgtctaa aaaacaaaaa caggccgggt gtggtggctc atgcctgccca tcccagtgt 6420

ttgggaggca gaggttggca taatcccagc gctctgggaa ttcc 6464

<210> 4

<211> 1218

<212> PRT

<213> Homo sapiens

<400> 4

Met Arg Ser Pro Arg Thr Arg Gly Arg Ser Gly Arg Pro Leu Ser Leu
1 5 10 15

Leu Leu Ala Leu Leu Cys Ala Leu Arg Ala Lys Val Cys Gly Ala Ser
20 25 30

Gly Gln Phe Glu Leu Glu Ile Leu Ser Met Gln Asn Val Asn Gly Glu
35 40 45

Leu Gln Asn Gly Asn Cys Cys Gly Gly Ala Arg Asn Pro Gly Asp Arg
50 55 60

Lys Cys Thr Arg Asp Glu Cys Asp Thr Tyr Phe Lys Val Cys Leu Lys
65 70 75 80

Glu Tyr Gln Ser Arg Val Thr Ala Gly Gly Pro Cys Ser Phe Gly Ser
85 90 95

Gly Ser Thr Pro Val Ile Gly Gly Asn Thr Phe Asn Leu Lys Ala Ser
100 105 110

Arg Gly Asn Asp Pro Asn Arg Ile Val Leu Pro Phe Ser Phe Ala Trp
115 120 125

Pro Arg Ser Tyr Thr Leu Leu Val Glu Ala Trp Asp Ser Ser Asn Asp
130 135 140

Thr Val Gln Pro Asp Ser Ile Ile Glu Lys Ala Ser His Ser Gly Met
145 150 155 160

Ile Asn Pro Ser Arg Gln Trp Gln Thr Leu Lys Gln Asn Thr Gly Val
165 170 175

Ala His Phe Glu Tyr Gln Ile Arg Val Thr Cys Asp Asp Tyr Tyr Tyr
 180 185 190

Gly Phe Gly Cys Asn Lys Phe Cys Arg Pro Arg Asp Asp Phe Phe Gly
 195 200 205

His Tyr Ala Cys Asp Gln Asn Gly Asn Lys Thr Cys Met Glu Gly Trp
 210 215 220

Met Gly Pro Glu Cys Asn Arg Ala Ile Cys Arg Gln Gly Cys Ser Pro
 225 230 235 240

Lys His Gly Ser Cys Lys Leu Pro Gly Asp Cys Arg Cys Gln Tyr Gly
 245 250 255

Trp Gln Gly Leu Tyr Cys Asp Lys Cys Ile Pro His Pro Gly Cys Val
 260 265 270

His Gly Ile Cys Asn Glu Pro Trp Gln Cys Leu Cys Glu Thr Asn Trp
 275 280 285

Ha Gly Gly Gln Leu Cys Asp Lys Asp Leu Asn Tyr Cys Gly Thr His Gln
 290 295 300

Pro Cys Leu Asn Gly Gly Thr Cys Ser Asn Thr Gly Pro Asp Lys Tyr
 305 310 315 320

Gln Cys Ser Cys Pro Glu Gly Tyr Ser Gly Pro Asn Cys Glu Ile Ala
 325 330 335

Glu His Ala Cys Leu Ser Asp Pro Cys His Asn Arg Gly Ser Cys Lys
 340 345 350

Glu Thr Ser Leu Gly Phe Glu Cys Glu Cys Ser Pro Gly Trp Thr Gly
 355 360 365

Pro Thr Cys Ser Thr Asn Ile Asp Asp Cys Ser Pro Asn Asn Cys Ser
 370 375 380

His Gly Gly Thr Cys Gln Asp Leu Val Asn Gly Phe Lys Cys Val Cys
 385 390 395 400

Pro Pro Gln Trp Thr Gly Lys Thr Cys Gln Leu Asp Ala Asn Glu Cys

405

410

415

Glu Ala Lys Pro Cys Val Asn Ala Lys Ser Cys Lys Asn Leu Ile Ala
420 425 430

Ser Tyr Tyr Cys Asp Cys Leu Pro Gly Trp Met Gly Gln Asn Cys Asp
435 440 445

Ile Asn Ile Asn Asp Cys Leu Gly Gln Cys Gln Asn Asp Ala Ser Cys
450 455 460

Arg Asp Leu Val Asn Gly Tyr Arg Cys Ile Cys Pro Pro Gly Tyr Ala
465 470 475 480

Gly Asp His Cys Glu Arg Asp Ile Asp Glu Cys Ala Ser Asn Pro Cys
485 490 495

Leu Asn Gly Gly His Cys Gln Asn Glu Ile Asn Arg Phe Gln Cys Leu
500 505 510

Cys Pro Thr Gly Phe Ser Gly Asn Leu Cys Gln Leu Asp Ile Asp Tyr
515 520 525

Cys Glu Pro Asn Pro Cys Gln Asn Gly Ala Gln Cys Tyr Asn Arg Ala
530 535 540

Ser Asp Tyr Phe Cys Lys Cys Pro Glu Asp Tyr Glu Gly Lys Asn Cys
545 550 555 560

Ser His Leu Lys Asp His Cys Arg Thr Thr Pro Cys Glu Val Ile Asp
565 570 575

Ser Cys Thr Val Ala Met Ala Ser Asn Asp Thr Pro Glu Gly Val Arg
580 585 590

Tyr Ile Ser Ser Asn Val Cys Gly Pro His Gly Lys Cys Lys Ser Gln
595 600 605

Ser Gly Gly Lys Phe Thr Cys Asp Cys Asn Lys Gly Phe Thr Gly Thr
610 615 620

Tyr Cys His Glu Asn Ile Asn Asp Cys Glu Ser Asn Pro Cys Arg Asn
625 630 635 640

Gly Gly Thr Cys Ile Asp Gly Val Asn Ser Tyr Lys Cys Ile Cys Ser
645 650 655

Asp Gly Trp Glu Gly Ala Tyr Cys Glu Thr Asn Ile Asn Asp Cys Ser
660 665 670

Gln Asn Pro Cys His Asn Gly Gly Thr Cys Arg Asp Leu Val Asn Asp
675 680 685

Phe Tyr Cys Asp Cys Lys Asn Gly Trp Lys Gly Lys Thr Cys His Ser
690 695 700

Arg Asp Ser Gln Cys Asp Glu Ala Thr Cys Asn Asn Gly Gly Thr Cys
705 710 715 720

Tyr Asp Glu Gly Asp Ala Phe Lys Cys Met Cys Pro Gly Gly Trp Glu
725 730 735

Gly Thr Thr Cys Asn Ile Ala Arg Asn Ser Ser Cys Leu Pro Asn Pro
740 745 750

Cys His Asn Gly Gly Thr Cys Val Val Asn Gly Glu Ser Phe Thr Cys
755 760 765

Val Cys Lys Glu Gly Trp Glu Gly Pro Ile Cys Ala Gln Asn Thr Asn
770 775 780

Asp Cys Ser Pro His Pro Cys Tyr Asn Ser Gly Thr Cys Val Asp Gly
785 790 795 800

Asp Asn Trp Tyr Arg Cys Glu Cys Ala Pro Gly Phe Ala Gly Pro Asp
805 810 815

Cys Arg Ile Asn Ile Asn Glu Cys Gln Ser Ser Pro Cys Ala Phe Gly
820 825 830

Ala Thr Cys Val Asp Glu Ile Asn Gly Tyr Arg Cys Val Cys Pro Pro
835 840 845

Gly His Ser Gly Ala Lys Cys Gln Glu Val Ser Gly Arg Pro Cys Ile
850 855 860

Thr Met Gly Ser Val Ile Pro Asp Gly Ala Lys Trp Asp Asp Asp Cys
865 870 875 880

Asn Thr Cys Gln Cys Leu Asn Gly Arg Ile Ala Cys Ser Lys Val Trp
885 890 895

Cys Gly Pro Arg Pro Cys Leu Leu His Lys Gly His Ser Glu Cys Pro
900 905 910

Ser Gly Gln Ser Cys Ile Pro Ile Leu Asp Asp Gln Cys Phe Val His
915 920 925

Pro Cys Thr Gly Val Gly Glu Cys Arg Ser Ser Ser Leu Gln Pro Val
930 935 940

Lys Thr Lys Cys Thr Ser Asp Ser Tyr Tyr Gln Asp Asn Cys Ala Asn
945 950 955 960

Ile Thr Phe Thr Phe Asn Lys Glu Met Met Ser Pro Gly Leu Thr Thr
965 970 975

Glu His Ile Cys Ser Glu Leu Arg Asn Leu Asn Ile Leu Lys Asn Val
980 985 990

Ser Ala Glu Tyr Ser Ile Tyr Ile Ala Cys Glu Pro Ser Pro Ser Ala
995 1000 1005

Asn Asn Glu Ile His Val Ala Ile Ser Ala Glu Asp Ile Arg Asp
1010 1015 1020

Asp Gly Asn Pro Ile Lys Glu Ile Thr Asp Lys Ile Ile Asp Leu
1025 1030 1035

Val Thr Lys Arg Asp Gly Asn Ser Ser Leu Ile Ala Ala Val Glu
1040 1045 1050

Glu Val Arg Val Gln Arg Arg Pro Leu Lys Asn Arg Thr Asp Phe
1055 1060 1065

Leu Val Pro Leu Leu Ser Ser Val Leu Thr Val Ala Trp Ile Cys
1070 1075 1080

Cys Leu Val Thr Ala Phe Tyr Trp Cys Leu Arg Lys Arg Arg Lys
1085 1090 1095

Pro Gly Ser His Thr His Ser Ala Ser Glu Asp Asn Thr Thr Asn
1100 1105 1110

Asn Val Arg Glu Gln Leu Asn Gln Ile Lys Asn Pro Ile Glu Lys
1115 1120 1125

His Gly Ala Asn Thr Val Pro Ile Lys Asp Tyr Glu Asn Lys Asn
1130 1135 1140

Ser Lys Met Ser Lys Ile Arg Thr His Asn Ser Glu Val Glu Glu
1145 1150 1155

Asp Asp Met Asp Lys His Gln Gln Lys Ala Arg Phe Ala Lys Gln
1160 1165 1170

Pro Ala Tyr Thr Leu Val Asp Arg Glu Glu Lys Pro Pro Asn Gly
1175 1180 1185

Thr Pro Thr Lys His Pro Asn Trp Thr Asn Lys Gln Asp Asn Arg
1190 1195 1200

Asp Leu Glu Ser Ala Gln Ser Leu Asn Arg Met Glu Tyr Ile Val
1205 1210 1215

<210> 5
<211> 4483
<212> DNA
<213> Homo sapiens

<400> 5
ggccggggcc gggcgggagg gtcgcggggg caatgcgggc gcagggcccg gggcgcccttc 60
cccggcggt gctgctgctg ctggcgctct gggcgcaggc ggcgcggccc atgggctatt 120
tcgagctgca gctgagcgcg ctgcggaacg tgaacgggga gctgctgagc ggcgcctgct 180
gtgacggcga cggccggaca acgcgcgcgg ggggctgcgg ccacgacgag tgcgacaccg 240
ctcctttacc ctcatcgctg aggcctggga ctgggacaac gataccaccc cgaatgagga 300
gctgctgatc gagcgagtgt cgcagtcggg catgatcaac ccggaggacc gctggaagag 360
cctgcacttc agcggccacg tggcgcacct ggagctgcag atccgcgtgc gctgcgacga 420
gaactactac agcgcactt gcaacaagtt ctgccggccc cgcaatgact ttttcggcca 480

ctacacctgc gaccagtacg gcaacaaggc ctgcatggac ggctggatgg gcaaggagtg 540
caaggaagct gtgtgtaaac aagggtgtaa tttgtccac gggggatgca ccgtgcctgg 600
ggagtgcagg tgcagctacg gctggcaagg gaggttctgc gatgagtgtg tccccctacc 660
cggctgcgtg catggcagtt gtgtggagcc ctggcagtg aactgtgaga ccaactgggg 720
cggcctgctc tgtgacaaag acctgaacta ctgtggcagc caccacccct gcaccaacgg 780
aggcacgtgc atcaacgccg agcctgacca gtaccgtgc acctgccctg acggctactc 840
gggcaggaac tgtgagaagg ctgagcacgc ctgcacctcc aaccctgtg ccaacggggg 900
ctcttgccat gaggtgccgt ccggtcttga atgccactgc ccatcgggct ggagcggggc 960
cacctgtgcc cttgacatcg atgagtgtgc ttcgaaccgg tgtgcggccg gtggcacctg 1020
tgtggaccag gtggacggct ttgagtgc atgtccccgag cagtgggtgg gggccacctg 1080
ccagctggac gccaatgagt gtgaagggaa gccatgcctt aacgcttttt cttgcaaaaa 1140
cctgattggc ggctattact gtgattgcat cccgggctgg aaggcatca actgccatat 1200
caacgtcaac gactgtcgcg ggcagtgtca gcatgggggc acctgcaagg acctggtgaa 1260
cgggtaccag tgtgtgtgcc cacggggctt cggaggccgg cattgcgagc tggaacgaga 1320
caagtgtgcc agcagccctt gccacagcgg cggcctctgc gaggaacctg ccgacggctt 1380
ccactgccac tgcggccagg gcttctccgg gcctctctgt gaggtggatg tcgacctttg 1440
tgagccaagc ccctgccgga acggcgctcg ctgctataac ctggagggtg actattactg 1500
cgcctgccct gatgactttg gtggcaagaa ctgctccgtg ccccgcgagc cgtgccctgg 1560
cggggcctgc agagtgatcg atggctgcgg gtcagacgcg gggcctggga tgcctggcac 1620
agcagcctcc ggcgtgtgtg gcccccatgg acgctgcgtc agccagccag ggggcaactt 1680
ttcctgcac tgtgacagtg gctttactgg cacctactgc catgagaaca ttgacgactg 1740
cctggggccag ccctgccgca atgggggcac atgcatcgat gaggtggacg ccttccgctg 1800
cttctgcccc agcgggttggg agggcgagct ctgcgacacc aatcccaacg actgccttcc 1860
cgatccctgc cacagccgcg gccgctgcta cgacctggtc aatgacttct actgtgcgtg 1920
cgacgacggc tggaagggca agacctgcca ctcacgcgag ttccagtgcg atgcctacac 1980
ctgcagcaac ggtggcacct gctacgacag cggcgacacc ttccgctgcg cctgcccccc 2040
cggctggaag ggcagcacct gcgccgtcgc caagaacagc agctgcctgc ccaacccctg 2100
tgtgaatggt ggcacctgcg tgggcagcgg ggcctccttc tctgcatct gccgggacgg 2160

ctgggaggggt cgtacttgca ctcaacaatc caacgactgc aacctctctgc cttgctacaa 2220
 tgggtggcatc tgtgttgacg gcgtcaactg gttccgctgc gagtgtgcac ctggcttcgc 2280
 ggggcctgac tgccgcatca acatcgacga gtgccagtcc tcgccctgtg cctacggggc 2340
 cacgtgtgtg gatgagatca acgggtatcg ctgtagctgc ccacccggcc gagccggccc 2400
 ccggtgccag gaagtgatcg ggttcgggag atcctgctgg tcccggggca ctccgttccc 2460
 acacggaagc tcctgggtgg aagactgcaa cagctgcgc tgccctggatg gccgcctga 2520
 ctgcagcaag gtgtggtgcg gatggaagcc ttgtctgctg gccggccagc ccgaggccct 2580
 gagcgcctag tgccactgg ggcaaagggt cctggagaag gcccaggcc agtgtctgcg 2640
 accaccctgt gaggcctggg gggagtgcgg cgcagaagag ccaccgagca cccctgct 2700
 gccacgctcc ggccacctgg acaataactg tgccgcctc accttgcat tcaaccgtga 2760
 ccacgtgcc cagggcacca cgggtgggcgc catttgctcc gggatccgct cctgccagc 2820
 cacaagggct gtggcacggg accgcctgct ggtgttgett tgcgaccggg cgtcctcggg 2880
 ggccagtgt gtggaggtgg ccgtgtcctt cagccctgcc agggacctgc ctgacagcag 2940
 cctgatccag ggcgcggccc acgccatcgt ggccgccatc acccagcggg ggaacagctc 3000
 actgctcctg gctgtcaccg aggtcaaggt ggagacggtt gttacgggcg gctcttcac 3060
 aggtctgctg gtgcctgtgc tgtgtggtgc cttcagcgtg ctgtggctgg cgtgcgtggt 3120
 cctgtgcgtg tggtagacac gcaagcgcag gaaagagcgg gagaggagcc ggctgccgcg 3180
 ggaggagagc gccacaacc agtgggcccc gctcaacccc atccgcaacc ccattgagcg 3240
 gccggggggg cacaaggacg tgctctacca gtgcaagaac ttactccac cgcgcgcag 3300
 gcgctgcccc ggccggccgg ccacgcggcc gtcaggagg atgaggagga cgaggatctt 3360
 ggccgcggtg aggaggactc cctggaggcg gagaagttcc tctcacacaa attcacaaa 3420
 gatcctggcc gctcgcggg gaggcggcc cactgggcct caggcccaa agtggacaac 3480
 cgcgcggtca ggagcatcaa tgaggccgc tacgtcggca aggaagtag ggcggctgca 3540
 gctgggcccg gaccagggc cctcgggtgg agccatgccg tctgccggac ccggaggccg 3600
 aggccatgtg catagtttct ttattttgtg taaaaaac accaaaaa aaaaccaat 3660
 gtttattttc tacgtttctt taaccttga taaattatc agtaactgtc aggctgaaaa 3720
 caatggagta ttctcgata gttgctatct ttgtaaagta gccgtgcgtg gcaactcgtg 3780
 tatgaaagga gagagcaaag ggtgtctgcg tcgtcaccaa atcgtcgcgt ttgttaccag 3840
 aggttgtgca ctgtttacag aatcttctt ttattcctca ctgggtttc tctgtgctcc 3900

aggccaaagt gccggtgaga cccatggctg tgttggtgtg gcccatggct gttggtggga 3960
 cccgtggctg atggtgtggc ctgtggctgt cgggtgggact cgtggctgtc aatgggacct 4020
 gtggctgtcg gtgggacctg cgggtggtcgg tgggaccctg gttattgatg tggccctggc 4080
 tgccggcacg gcccggtggt gttgacgcac ctgtggttgt tagtggggcc tgaggtcac 4140
 ggcggtggccc aaggccggca ggtcaacctc gcgcttgctg gccagtcac cctgcctgcc 4200
 gtctgtgctt cctcctgccc agaacgcccg ctccagcgat ctctccactg tgctttcaga 4260
 agtgccttc ctgctgcgca gttctcccat cctgggacgg cggcagtatt gaagctcgtg 4320
 acaagtgcct tcacacagac ccctcgcaac tgtccacgg tgccgtggca ccaggcgctg 4380
 cccacctgcc ggccccggcc gcccctctc gtgaaagtgc atttttgtaa atgtgtacat 4440
 attaaaggaa gcactctgta taaaaaaaaa aaaccggaat tcc 4483

<210> 6
 <211> 1257
 <212> PRT
 <213> Homo sapiens

<400> 6

Met Ile Asn Pro Glu Asp Arg Trp Lys Ser Leu His Phe Ser Gly His
 1 5 10 15

Val Ala His Leu Glu Leu Gln Ile Arg Val Arg Cys Asp Glu Asn Tyr
 20 25 30

Tyr Ser Ala Thr Cys Asn Lys Phe Cys Arg Pro Arg Asn Asp Phe Phe
 35 40 45

Gly His Tyr Thr Cys Asp Gln Tyr Gly Asn Lys Ala Cys Met Asp Gly
 50 55 60

Trp Met Gly Lys Glu Cys Lys Glu Ala Val Cys Lys Gln Gly Cys Asn
 65 70 75 80

Leu Leu His Gly Gly Cys Thr Val Pro Gly Glu Cys Arg Cys Ser Tyr
 85 90 95

Gly Trp Gln Gly Arg Phe Cys Asp Glu Cys Val Pro Tyr Pro Gly Cys
 100 105 110

Val His Gly Ser Cys Val Glu Pro Trp Gln Cys Asn Cys Glu Thr Asn
115 120 125

Trp Gly Gly Leu Leu Cys Asp Lys Asp Leu Asn Tyr Cys Gly Ser His
130 135 140

His Pro Cys Thr Asn Gly Gly Thr Cys Ile Asn Ala Glu Pro Asp Gln
145 150 155 160

Tyr Arg Cys Thr Cys Pro Asp Gly Tyr Ser Gly Arg Asn Cys Glu Lys
165 170 175

Ala Glu His Ala Cys Thr Ser Asn Pro Cys Ala Asn Gly Gly Ser Cys
180 185 190

His Glu Val Pro Ser Gly Phe Glu Cys His Cys Pro Ser Gly Trp Ser
195 200 205

Gly Pro Thr Cys Ala Leu Asp Ile Asp Glu Cys Ala Ser Asn Pro Cys
210 215 220

Ala Ala Gly Gly Thr Cys Val Asp Gln Val Asp Gly Phe Glu Cys Ile
225 230 235 240

Cys Pro Glu Gln Trp Val Gly Ala Thr Cys Gln Leu Asp Ala Asn Glu
245 250 255

Cys Glu Gly Lys Pro Cys Leu Asn Ala Phe Ser Cys Lys Asn Leu Ile
260 265 270

Gly Gly Tyr Tyr Cys Asp Cys Ile Pro Gly Trp Lys Gly Ile Asn Cys
275 280 285

His Ile Asn Val Asn Asp Cys Arg Gly Gln Cys Gln His Gly Gly Thr
290 295 300

Cys Lys Asp Leu Val Asn Gly Tyr Gln Cys Val Cys Pro Arg Gly Phe
305 310 315 320

Gly Gly Arg His Cys Glu Leu Glu Arg Asp Lys Cys Ala Ser Ser Pro
325 330 335

Cys His Ser Gly Gly Leu Cys Glu Asp Leu Ala Asp Gly Phe His Cys

340

345

350

His Cys Pro Gln Gly Phe Ser Gly Pro Leu Cys Glu Val Asp Val Asp
355 360 365

Leu Cys Glu Pro Ser Pro Cys Arg Asn Gly Ala Arg Cys Tyr Asn Leu
370 375 380

Glu Gly Asp Tyr Tyr Cys Ala Cys Pro Asp Asp Phe Gly Gly Lys Asn
385 390 395 400

Cys Ser Val Pro Arg Glu Pro Cys Pro Gly Gly Ala Cys Arg Val Ile
405 410 415

Asp Gly Cys Gly Ser Asp Ala Gly Pro Gly Met Pro Gly Thr Ala Ala
420 425 430

Ser Gly Val Cys Gly Pro His Gly Arg Cys Val Ser Gln Pro Gly Gly
435 440 445

Asn Phe Ser Cys Ile Cys Asp Ser Gly Phe Thr Gly Thr Tyr Cys His
450 455 460

Glu Asn Ile Asp Asp Cys Leu Gly Gln Pro Cys Arg Asn Gly Gly Thr
465 470 475 480

Cys Ile Asp Glu Val Asp Ala Phe Arg Cys Phe Cys Pro Ser Gly Trp
485 490 495

Glu Gly Glu Leu Cys Asp Thr Asn Pro Asn Asp Cys Leu Pro Asp Pro
500 505 510

Cys His Ser Arg Gly Arg Cys Tyr Asp Leu Val Asn Asp Phe Tyr Cys
515 520 525

Ala Cys Asp Asp Gly Trp Lys Gly Lys Thr Cys His Ser Arg Glu Phe
530 535 540

Gln Cys Asp Ala Tyr Thr Cys Ser Asn Gly Gly Thr Cys Tyr Asp Ser
545 550 555 560

Gly Asp Thr Phe Arg Cys Ala Cys Pro Pro Gly Trp Lys Gly Ser Thr
565 570 575

Cys Ala Val Ala Lys Asn Ser Ser Cys Leu Pro Asn Pro Cys Val Asn
580 585 590

Gly Gly Thr Cys Val Gly Ser Gly Ala Ser Phe Ser Cys Ile Cys Arg
595 600 605

Asp Gly Trp Glu Gly Arg Thr Cys Thr His Asn Thr Asn Asp Cys Asn
610 615 620

Pro Leu Pro Cys Tyr Asn Gly Gly Ile Cys Val Asp Gly Val Asn Trp
625 630 635 640

Phe Arg Cys Glu Cys Ala Pro Gly Phe Ala Gly Pro Asp Cys Arg Ile
645 650 655

Asn Ile Asp Glu Cys Gln Ser Ser Pro Cys Ala Tyr Gly Ala Thr Cys
660 665 670

H₂ Val Asp Glu Ile Asn Gly Tyr Arg Cys Ser Cys Pro Pro Gly Arg Ala
675 680 685

Gly Pro Arg Cys Gln Glu Val Ile Gly Phe Gly Arg Ser Cys Trp Ser
690 695 700

Arg Gly Thr Pro Phe Pro His Gly Ser Ser Trp Val Glu Asp Cys Asn
705 710 715 720

Ser Cys Arg Cys Leu Asp Gly Arg Arg Asp Cys Ser Lys Val Trp Cys
725 730 735

Gly Trp Lys Pro Cys Leu Leu Ala Gly Gln Pro Glu Ala Leu Ser Ala
740 745 750

Gln Cys Pro Leu Gly Gln Arg Cys Leu Glu Lys Ala Pro Gly Gln Cys
755 760 765

Leu Arg Pro Pro Cys Glu Ala Trp Gly Glu Cys Gly Ala Glu Glu Pro
770 775 780

Pro Ser Thr Pro Cys Leu Pro Arg Ser Gly His Leu Asp Asn Asn Cys
785 790 795 800

Ala Arg Leu Thr Leu His Phe Asn Arg Asp His Val Pro Gln Gly Thr
805 810 815

Thr Val Gly Ala Ile Cys Ser Gly Ile Arg Ser Leu Pro Ala Thr Arg
820 825 830

Ala Val Ala Arg Asp Arg Leu Leu Val Leu Leu Cys Asp Arg Ala Ser
835 840 845

Ser Gly Ala Ser Ala Val Glu Val Ala Val Ser Phe Ser Pro Ala Arg
850 855 860

Asp Leu Pro Asp Ser Ser Leu Ile Gln Gly Ala Ala His Ala Ile Val
865 870 875 880

Ala Ala Ile Thr Gln Arg Gly Asn Ser Ser Leu Leu Leu Ala Val Thr
885 890 895

H
Glu Val Lys Val Glu Thr Val Val Thr Gly Gly Ser Ser Thr Gly Leu
900 905 910

Leu Val Pro Val Leu Cys Gly Ala Phe Ser Val Leu Trp Leu Ala Cys
915 920 925

Val Val Leu Cys Val Trp Trp Thr Arg Lys Arg Arg Lys Glu Arg Glu
930 935 940

Arg Ser Arg Leu Pro Arg Glu Glu Ser Ala Asn Asn Gln Trp Ala Pro
945 950 955 960

Leu Asn Pro Ile Arg Asn Pro Ile Glu Arg Pro Gly Gly His Lys Asp
965 970 975

Val Leu Tyr Gln Cys Lys Asn Phe Thr Pro Pro Pro Arg Arg Arg Cys
980 985 990

Pro Gly Arg Pro Ala Thr Arg Pro Ser Gly Arg Met Arg Arg Thr Arg
995 1000 1005

Ile Leu Ala Ala Val Arg Arg Thr Pro Trp Arg Arg Arg Ser Ser
1010 1015 1020

Ser	His	Thr	Asn	Ser	Pro	Lys	Ile	Leu	Ala	Ala	Arg	Arg	Gly	Gly	1025	1030	1035
Arg	Pro	Thr	Gly	Pro	Gln	Ala	Pro	Lys	Trp	Thr	Thr	Ala	Arg	Ser	1040	1045	1050
Gly	Ala	Ser	Met	Arg	Pro	Ala	Thr	Ser	Ala	Arg	Glu	Val	Gly	Arg	1055	1060	1065
Leu	Gln	Leu	Gly	Arg	Asp	Pro	Gly	Pro	Ser	Val	Gly	Ala	Met	Pro	1070	1075	1080
Ser	Ala	Gly	Pro	Gly	Gly	Arg	Gly	His	Val	His	Ser	Phe	Phe	Ile	1085	1090	1095
Leu	Cys	Lys	Lys	Thr	Thr	Lys	Asn	Lys	Asn	Gln	Met	Phe	Ile	Phe	1100	1105	1110
Tyr	Val	Ser	Leu	Thr	Leu	Tyr	Lys	Leu	Phe	Ser	Asn	Cys	Gln	Ala	1115	1120	1125
Glu	Asn	Asn	Gly	Val	Phe	Ser	Asp	Ser	Cys	Tyr	Phe	Cys	Lys	Val	1130	1135	1140
Ala	Val	Arg	Gly	Thr	Arg	Cys	Met	Lys	Gly	Glu	Ser	Lys	Gly	Cys	1145	1150	1155
Leu	Arg	Arg	His	Gln	Ile	Val	Ala	Phe	Val	Thr	Arg	Gly	Cys	Ala	1160	1165	1170
Leu	Phe	Thr	Glu	Ser	Ser	Phe	Tyr	Ser	Ser	Leu	Gly	Phe	Leu	Cys	1175	1180	1185
Ala	Pro	Gly	Gln	Ser	Ala	Gly	Glu	Thr	His	Gly	Cys	Val	Gly	Val	1190	1195	1200
Ala	His	Gly	Cys	Trp	Trp	Asp	Pro	Trp	Leu	Met	Val	Trp	Pro	Val	1205	1210	1215
Ala	Val	Gly	Gly	Thr	Arg	Gly	Cys	Gln	Trp	Asp	Leu	Trp	Leu	Ser	1220	1225	1230
Val	Gly	Pro	Thr	Val	Val	Gly	Gly	Thr	Leu	Val	Ile	Asp	Val	Ala			

1235

1240

1245

Leu Ala Ala Gly Thr Ala Arg Gly Cys
 1250 1255

<210> 7
 <211> 3582
 <212> DNA
 <213> Gallus sp.

<400> 7
 cagggtggcgt cagcatcggg acagttcgag ctggagatct tatccgtgca gaatgtgaac 60
 ggcgtgctgc agaacgggaa ctgctgcgac ggcactcgaa accccggaga taaaaagtgc 120
 accagagatg agtgtgacac ctacttttaa gtttgccctga aggagtacca gtgcgagggtc 180
 actgctggcg gcccttgag cttcggatcc aaatccaccc ctgtcatcgg cgggaatacc 240
 ttcaatttaa agtacagccg gaataatgaa aagaaccgga ttgttatccc ttccacgttc 300
 gcctggccga gatcctacac gttgcttggt gaggcattgg attacaatga taactctact 360
 aatcccgatc gcataattga gaaggcatcc cactctggca tgatcaatcc aagccgtcag 420
 tggcagacgt tgaacataa cacaggagct gccacttttg agtatcaaat ccgtgtgact 480
 tgcgcagaac attactatgg ctttggatgc aacaagtttt gtcgaccgag agatgacttc 540
 ttactcacc atacctgtga ccagaatggc aacaaaacct gcttggaagg ctggacggga 600
 ccagaatgca acaaagctat ttgtcgtcag ggatgtagcc ccaagcatgg ttcttgcaca 660
 gttccaggag agtgcagggtg tcagtatgga tggcaaggcc agtactgtga taagtgcatt 720
 ccacaccogg gatgtgtcca tggcacttgc attgaaccat ggcagtgcct ctgtgaaacc 780
 aactgggggtg gtcagctctg tgacaaagac ctgaactact gtggaacca cccaccctgt 840
 ttgaatggtg gtacctgcag caacactggc cccgataaat accagtgttc ctgccctgag 900
 gggttactcag gacagaactg tgaaatagcg gagcatgcgt gcctctctga tccgtgccac 960
 aacggaggaa gctgcctaga aacgtctaca ggatttgaat gtgtgtgtgc acctggctgg 1020
 gctggacca cttgcaactga taatattgat gattgttctc caaatccctg tggatcatgga 1080
 ggaacttgcc aagatctagt tgatggattt aagtgtattt gccacactca gtggactggc 1140
 aaaacatgcc agctagatgc gaatgaatgt gagggcaaac cctgtgtcaa tgccaactcc 1200
 tgcaggaact tgattggcag ctactattgt gactgcatta ctggctgggtc tggccacaac 1260
 tgtgatataa atattaatga ttgtcgtgga caatgtcaga atggaggatc ctgtcgggac 1320

ttggttaatg gttatcgggtg catctgttca cctggctatg caggagatca ctgtgagaaa 1380
 gacatcaatg aatgtgcaag taacccttgc atgaatgggg gtcactgccca ggatgaaatc 1440
 aatggattcc aatgtctgtg tcctgctggg ttctcaggaa acctctgtca gctggatata 1500
 gactactgtg agccaaaccc ttgccagaac ggtgcccagt gcttcaatct tgctatggac 1560
 tattttctgta actgccctga agattacgaa ggcaagaact gctcccacct gaaagatcac 1620
 tgccgcacaa ctcccttgta agtaatcgac agctgtacag tggcagtggc ttctaacagc 1680
 acaccagaag gagttcgtta cttttcttca aatgtctgtg gtcctcatgg aaaatgcaag 1740
 agccaagcag gtggaaaatt cacctgtgaa tgcaacaaag gattcactgg cacctactgt 1800
 catgagaata tcaatgactg tgagagcaac ccctgtaaaa atggtggcac ttgtattgac 1860
 ggtgtaaact cctacaaatg tatttgtagt gatggatggg aaggaaacata ttgtgaaaca 1920
 aatattaatg actgcagtaa aaacccctgc cacaatggag gaacttgccg agacttggtc 1980
 aatgacttct tctgtgaatg taaaaatggg tggaaaggaa aaacttgcca ctctcgtgac 2040
 agccagtgtg atgaggcaac atgcaataat ggaggaacat gttatgatga gggggacact 2100
 ttcaagtgca tgtgtcctgc aggatgggaa ggagccactt gtaatatagc aaggaaacagc 2160
 agctgcctgc caaacccctg tcacaatggg ggtacctgtg tagttagtgg ggattctttc 2220
 acttgtgtct gcaaggaggg ctgggaagga ccgacatgta ctcagaacac aaatgactgc 2280
 agtcctcatc cttgttaca cagtgggtact tgtgtggatg gagacaactg gtaccgctgt 2340
 gagtgcgctc ccggcttcgc aggtcccgac tgtaggatca acatcaatga atgtcagtct 2400
 tcaccctgtg cctttggggc tacttgtgtg gatgaaatta atgggtaccg ttgcatttgt 2460
 ccaccgggtc gcagtgggtc aggatgccag gaagttacag ggaggccttg ctttaccagt 2520
 attcgagtaa tgccagacgg tgctaagtgg gatgatgact gtaatacttg tcagtgtttg 2580
 aatggaaaag tcacctgttc taaggtttg tgtggtcctc gaccttgtat aatacatgcc 2640
 aaaggtcata atgaatgccc agctggacac gcttgtgttc ctgttaaaga agaccattgt 2700
 ttcactcatc cttgtgctgc agtgggtgaa tgctggcctt ctaatcagca gcctgtgaag 2760
 accaaatgca attctgattc ttattaccaa gataattgtg ccaacatcac cttcaccttt 2820
 aataaggaaa tgatggcacc aggccttacc acggagcaca tttgcagtga attgaggaat 2880
 ctgaatatcc tgaagaatgt ttctgctgaa tattccatct atattacctg tgagccttca 2940
 cacttggcaa ataatgaaat acatgttgct atttctgctg aagatatagg agaagatgaa 3000
 aacccaatca aggaaatcac agataagatt attgaccttg tcagtaagcg tgatggaaac 3060

aacacactaa ttgctgcagt cgcagaagtc agagtacaaa ggcgaccagt taagaacaaa 3120
 acagatttct tgggtgccatt actgagctca gtcttaacag tagcctggat ctgctgtctg 3180
 gtaactgttt tctattggtg cattcaaaag cgcagaaagc agagcagcca tactcacaca 3240
 gcatctgatg acaacaccac caacaacgta agggagcagc tgaatcagat taaaaacccc 3300
 atagagaaac acggagcaaa tactgttcca attaaagact atgaaaacaa aaactctaaa 3360
 atcgccaaaa taaggacgca caattcagaa gtggaggaag atgacatgga caaacaccag 3420
 caaaaggccc gggttgccaa gcagccagcg tacactttgg tagacagaga tgaaaagcca 3480
 cccaacagca caccacaaaa acacccaaac tggacaaata aacaggacaa cagagacttg 3540
 gaaagtgcac aaagtttaaa tagaatggag tacattgtat ag 3582

<210> 8
 <211> 1193
 <212> PRT
 <213> Gallus sp.

<400> 8

Gln Val Ala Ser Ala Ser Gly Gln Phe Glu Leu Glu Ile Leu Ser Val
 1 5 10 15

Gln Asn Val Asn Gly Val Leu Gln Asn Gly Asn Cys Cys Asp Gly Thr
 20 25 30

Arg Asn Pro Gly Asp Lys Lys Cys Thr Arg Asp Glu Cys Asp Thr Tyr
 35 40 45

Phe Lys Val Cys Leu Lys Glu Tyr Gln Ser Arg Val Thr Ala Gly Gly
 50 55 60

Pro Cys Ser Phe Gly Ser Lys Ser Thr Pro Val Ile Gly Gly Asn Thr
 65 70 75 80

Phe Asn Leu Lys Tyr Ser Arg Asn Asn Glu Lys Asn Arg Ile Val Ile
 85 90 95

Pro Phe Thr Phe Ala Trp Pro Arg Ser Tyr Thr Leu Leu Val Glu Ala
 100 105 110

Trp Asp Tyr Asn Asp Asn Ser Thr Asn Pro Asp Arg Ile Ile Glu Lys
 115 120 125

Ala Ser His Ser Gly Met Ile Asn Pro Ser Arg Gln Trp Gln Thr Leu
 130 135 140

Lys His Asn Thr Gly Ala Ala His Phe Glu Tyr Gln Ile Arg Val Thr
 145 150 155 160

Cys Ala Glu His Tyr Tyr Gly Phe Gly Cys Asn Lys Phe Cys Arg Pro
 165 170 175

Arg Asp Asp Phe Phe Thr His His Thr Cys Asp Gln Asn Gly Asn Lys
 180 185 190

Thr Cys Leu Glu Gly Trp Thr Gly Pro Glu Cys Asn Lys Ala Ile Cys
 195 200 205

Arg Gln Gly Cys Ser Pro Lys His Gly Ser Cys Thr Val Pro Gly Glu
 210 215 220

Cys Arg Cys Gln Tyr Gly Trp Gln Gly Gln Tyr Cys Asp Lys Cys Ile
 225 230 235 240

Pro His Pro Gly Cys Val His Gly Thr Cys Ile Glu Pro Trp Gln Cys
 245 250 255

Leu Cys Glu Thr Asn Trp Gly Gly Gln Leu Cys Asp Lys Asp Leu Asn
 260 265 270

Tyr Cys Gly Thr His Pro Pro Cys Leu Asn Gly Gly Thr Cys Ser Asn
 275 280 285

Thr Gly Pro Asp Lys Tyr Gln Cys Ser Cys Pro Glu Gly Tyr Ser Gly
 290 295 300

Gln Asn Cys Glu Ile Ala Glu His Ala Cys Leu Ser Asp Pro Cys His
 305 310 315 320

Asn Gly Gly Ser Cys Leu Glu Thr Ser Thr Gly Phe Glu Cys Val Cys
 325 330 335

Ala Pro Gly Trp Ala Gly Pro Thr Cys Thr Asp Asn Ile Asp Asp Cys
 340 345 350

Ser Pro Asn Pro Cys Gly His Gly Gly Thr Cys Gln Asp Leu Val Asp
 355 360 365

Gly Phe Lys Cys Ile Cys Pro Pro Gln Trp Thr Gly Lys Thr Cys Gln
 370 375 380

Leu Asp Ala Asn Glu Cys Glu Gly Lys Pro Cys Val Asn Ala Asn Ser
 385 390 395 400

Cys Arg Asn Leu Ile Gly Ser Tyr Tyr Cys Asp Cys Ile Thr Gly Trp
 405 410 415

Ser Gly His Asn Cys Asp Ile Asn Ile Asn Asp Cys Arg Gly Gln Cys
 420 425 430

Gln Asn Gly Gly Ser Cys Arg Asp Leu Val Asn Gly Tyr Arg Cys Ile
 435 440 445

Cys Ser Pro Gly Tyr Ala Gly Asp His Cys Glu Lys Asp Ile Asn Glu
 450 455 460

Cys Ala Ser Asn Pro Cys Met Asn Gly Gly His Cys Gln Asp Glu Ile
 465 470 475 480

Asn Gly Phe Gln Cys Leu Cys Pro Ala Gly Phe Ser Gly Asn Leu Cys
 485 490 495

Gln Leu Asp Ile Asp Tyr Cys Glu Pro Asn Pro Cys Gln Asn Gly Ala
 500 505 510

Gln Cys Phe Asn Leu Ala Met Asp Tyr Phe Cys Asn Cys Pro Glu Asp
 515 520 525

Tyr Glu Gly Lys Asn Cys Ser His Leu Lys Asp His Cys Arg Thr Thr
 530 535 540

Pro Cys Glu Val Ile Asp Ser Cys Thr Val Ala Val Ala Ser Asn Ser
 545 550 555 560

Thr Pro Glu Gly Val Arg Tyr Ile Ser Ser Asn Val Cys Gly Pro His
 565 570 575

Gly Lys Cys Lys Ser Gln Ala Gly Gly Lys Phe Thr Cys Glu Cys Asn
580 585 590

Lys Gly Phe Thr Gly Thr Tyr Cys His Glu Asn Ile Asn Asp Cys Glu
595 600 605

Ser Asn Pro Cys Lys Asn Gly Gly Thr Cys Ile Asp Gly Val Asn Ser
610 615 620

Tyr Lys Cys Ile Cys Ser Asp Gly Trp Glu Gly Thr Tyr Cys Glu Thr
625 630 635 640

Asn Ile Asn Asp Cys Ser Lys Asn Pro Cys His Asn Gly Gly Thr Cys
645 650 655

Arg Asp Leu Val Asn Asp Phe Phe Cys Glu Cys Lys Asn Gly Trp Lys
660 665 670

Gly Lys Thr Cys His Ser Arg Asp Ser Gln Cys Asp Glu Ala Thr Cys
675 680 685

Asn Asn Gly Gly Thr Cys Tyr Asp Glu Gly Asp Thr Phe Lys Cys Met
690 695 700

Cys Pro Ala Gly Trp Glu Gly Ala Thr Cys Asn Ile Ala Arg Asn Ser
705 710 715 720

Ser Cys Leu Pro Asn Pro Cys His Asn Gly Gly Thr Cys Val Val Ser
725 730 735

Gly Asp Ser Phe Thr Cys Val Cys Lys Glu Gly Trp Glu Gly Pro Thr
740 745 750

Cys Thr Gln Asn Thr Asn Asp Cys Ser Pro His Pro Cys Tyr Asn Ser
755 760 765

Gly Thr Cys Val Asp Gly Asp Asn Trp Tyr Arg Cys Glu Cys Ala Pro
770 775 780

Gly Phe Ala Gly Pro Asp Cys Arg Ile Asn Ile Asn Glu Cys Gln Ser
785 790 795 800

Ser Pro Cys Ala Phe Gly Ala Thr Cys Val Asp Glu Ile Asn Gly Tyr

805	810	815
Arg Cys Ile Cys Pro Pro Gly Arg Ser Gly Pro Gly Cys Gln Glu Val		
820	825	830
Thr Gly Arg Pro Cys Phe Thr Ser Ile Arg Val Met Pro Asp Gly Ala		
835	840	845
Lys Trp Asp Asp Asp Cys Asn Thr Cys Gln Cys Leu Asn Gly Lys Val		
850	855	860
Thr Cys Ser Lys Val Trp Cys Gly Pro Arg Pro Cys Ile Ile His Ala		
865	870	875 880
Lys Gly His Asn Glu Cys Pro Ala Gly His Ala Cys Val Pro Val Lys		
885	890	895
Glu Asp His Cys Phe Thr His Pro Cys Ala Ala Val Gly Glu Cys Trp		
900	905	910
Pro Ser Asn Gln Gln Pro Val Lys Thr Lys Cys Asn Ser Asp Ser Tyr		
915	920	925
Tyr Gln Asp Asn Cys Ala Asn Ile Thr Phe Thr Phe Asn Lys Glu Met		
930	935	940
Met Ala Pro Gly Leu Thr Thr Glu His Ile Cys Ser Glu Leu Arg Asn		
945	950	955 960
Leu Asn Ile Leu Lys Asn Val Ser Ala Glu Tyr Ser Ile Tyr Ile Thr		
965	970	975
Cys Glu Pro Ser His Leu Ala Asn Asn Glu Ile His Val Ala Ile Ser		
980	985	990
Ala Glu Asp Ile Gly Glu Asp Glu Asn Pro Ile Lys Glu Ile Thr Asp		
995	1000	1005
Lys Ile Ile Asp Leu Val Ser Lys Arg Asp Gly Asn Asn Thr Leu		
1010	1015	1020
Ile Ala Ala Val Ala Glu Val Arg Val Gln Arg Arg Pro Val Lys		
1025	1030	1035

Asn Lys Thr Asp Phe Leu Val Pro Leu Leu Ser Ser Val Leu Thr
 1040 1045 1050

Val Ala Trp Ile Cys Cys Leu Val Thr Val Phe Tyr Trp Cys Ile
 1055 1060 1065

Gln Lys Arg Arg Lys Gln Ser Ser His Thr His Thr Ala Ser Asp
 1070 1075 1080

Asp Asn Thr Thr Asn Asn Val Arg Glu Gln Leu Asn Gln Ile Lys
 1085 1090 1095

Asn Pro Ile Glu Lys His Gly Ala Asn Thr Val Pro Ile Lys Asp
 1100 1105 1110

Tyr Glu Asn Lys Asn Ser Lys Ile Ala Lys Ile Arg Thr His Asn
 1115 1120 1125

Ser Glu Val Glu Glu Asp Asp Met Asp Lys His Gln Gln Lys Ala
 1130 1135 1140

Arg Phe Ala Lys Gln Pro Ala Tyr Thr Leu Val Asp Arg Asp Glu
 1145 1150 1155

Lys Pro Pro Asn Ser Thr Pro Thr Lys His Pro Asn Trp Thr Asn
 1160 1165 1170

Lys Gln Asp Asn Arg Asp Leu Glu Ser Ala Gln Ser Leu Asn Arg
 1175 1180 1185

Met Glu Tyr Ile Val
 1190

<210> 9
 <211> 2088
 <212> DNA
 <213> Gallus sp.

<400> 9
 gaattcggca cgagggttttt tttttttttt ttcccctctt ttctttcttt tccttttgcc 60
 atccgaaaga gctgtcagcc gccgccgggc tgcacctaaa ggcgtcggta gggggataac 120
 agtcagagac cctcctgaaa gcaggagacg ggacgggtacc cctccggctc tgcggggcgg 180

ctgcggcccc	tccgttcttt	ccccctcccc	gagagacact	cttcctttcc	ccccacgaag	240
acacaggggc	aggaacgcga	gcgctgcccc	tccgccatgg	gaggccgctt	cctgctgacg	300
ctcgcctcc	tctcggcgct	gctgtgccgc	tgccaggttg	acggctccgg	ggtgttcgag	360
ctgaagctgc	aggagtttgt	caacaagaag	gggctgctca	gcaaccgcaa	ctgctgccgg	420
gggggcggcc	ccggaggcgc	cgggcagcag	cagtgcgact	gcaagacctt	cttcgcgctc	480
tgctgaagc	actaccaggc	cagcgtctcc	cccagaccgc	cctgcaccta	cggcagcgcc	540
atcacccccg	tctcggcggc	caactccttc	agcgtccccg	acggcgcggg	cggcgccgac	600
cccgcttca	gcaaccccat	ccgcttcccc	ttcggcttca	cctggccccg	caccttctcg	660
ctcatcatcg	aggctctgca	caccgactcc	cccgacgacc	tcaccacaga	aaacccccgag	720
cgcctcatca	gccgcctggc	caccagagg	cacctggcgg	tgggcgagga	gtggtcccag	780
gacctgcaca	gcagcggccg	caccgacctc	aagtactcct	atcgctttgt	gtgtgatgag	840
cactactacg	gggaaggctg	ctctgtcttc	tgccggcccc	gtgacgaccg	cttcgggtcac	900
ttcacctgtg	gagagcgtgg	cgagaaggtc	tgcaaccacg	gctggaaggg	ccagtactgc	960
actgagccga	tttgcttgcc	tgggtgtgac	gagcagcacg	gcttctgcga	caaacctggg	1020
gaatgcaagt	gcagagtggg	ttggcagggg	cggtactgtg	acgagtgcac	ccgataccca	1080
ggctgcctgc	acggtacctg	tcagcagcca	tggcagtgca	actgccagga	aggctggggc	1140
ggccttttct	gcaaccagga	cctgaactac	tgcactcacc	acaagccatg	caagaatggg	1200
cgggtgtacgt	ggttgtggcc	agtcccctcg	atgtgaacaa	gaacggctgg	acccatgtgt	1260
ggctccagct	gcgagattga	aatcaacgaa	tgtgatgcca	acccttgcaa	gaatgggtgga	1320
agctgcacgg	atctcgagaa	cagctattcc	tgtacctgcc	cccaggctt	ctatggtaaa	1380
aactgtgagc	tgagtgcaat	gacttgtgct	gatggaccgt	gcttcaatgg	agggcgatgc	1440
actgacaacc	ctgatgggtg	atacagctgc	cgctgcccac	tgggttattc	tgggttcaac	1500
tgtgaaaaga	aaatcgatta	ctgcagttcc	agcccttggtg	ctaattggagc	ccagtgcgtt	1560
gacctgggga	actcctacat	atgccagtgc	caggctgggt	tcactggcag	gcactgtgac	1620
gacaacgtgg	acgattgcgc	ctccttcccc	tgctgcaatg	gagggacctg	tcaggatggg	1680
gtcaacgact	actcctgcac	ctgccccccg	ggatacaacg	ggaagaactg	cagcacgccc	1740
gtgagcagat	gcgagcacia	cccctgccac	aatggggcca	cctgccacga	gagaagcaac	1800
cgctacgtgt	gcgagtgcgc	tcggggctac	ggcggcctca	actgccagtt	cctgctcccc	1860

gagccacctc aggggccggt catcgttgac ttcaccgaga agtacacaga gggccagaac	1920
agccagtttc cctggatcgc agtgtgcgcc gggattattc tggtcctcat gctgctgctg	1980
taccagtcgg tgtacgtcat atcagaagag aaagatgagt gcatcatagc aactgagggtg	2040
taaaacagac gtgacgtggc aaagcttata gataccgtca tcaagctt	2088

<210> 10
 <211> 2883
 <212> DNA
 <213> Gallus sp.

<220>
 <221> misc_feature
 <222> (829)..(830)
 <223> n is a, c, g, or t

<400> 10	
gaattcggca cgaggttttt tttttttttt ttccctcttt ttctttcttt tccttttgcc	60
atccgaaaga gctgtcagcc gccgccgggc tgcacctaaa ggcgtcggta gggggataac	120
agtcagagac cctcctgaaa gcaggagacg ggacggtacc cctccggctc tgcggggcgg	180
ctgcggcccc tccgttcttt cccctctccc gagagacact ctctctttcc cccacgaag	240
acacaggggc aggaacgcga gcgctgcccc tccgccatgg gaggccgctt cctgctgacg	300
ctcgccctcc tctcggcgct gctgtgccgc tgccaggttg acggctccgg ggtgttcgag	360
ctgaagctgc aggagtttgt caacaagaag gggctgctca gcaaccgcaa ctgctgccgg	420
gggggcggcc ccggaggcgc cgggcagcag cagtgcgact gcaagacctt cttccgcgctc	480
tgctgaagc actaccaggc cagcgtctcc cccgagccgc cctgcacctc cggcagcgcc	540
atccccccg tcctcggcgc caactccttc agcgtccccg acggcgcggg cggcgccgac	600
cccgcttca gcaaccccat ccgcttcccc ttcggttca cctggcccgg caccttctcg	660
ctcatcatcg aggctctgca caccgactcc cccgacgacc tcaccacaga aaaccccgag	720
cgctcatca gccgcctggc caccagagg cacctggcgg tgggcgagga gtggtcccag	780
gacctgcaca gcagcggccg caccgacctc aagtactcct atcgctttnn gtgtgatgag	840
cactactacg gggaaggctg ctctgtcttc tgccggcccc gtgacgaccg cttcggtcac	900
ttcacctgtg gagagcgtgg cgagaaggtc tgcaaccag gctggaaggg ccagtactgc	960
actgagccga tttgcttgcc tgggtgtgac gagcagcacg gcttctgcga caaacctggg	1020
gaatgcaagt gcagagtggg ttggcagggg cggtagctgt acgagtgcac ccgataccca	1080
ggctgcctgc acggtacctg tcagcagcca tggcagtgca actgccagga aggctggggc	1140

ggccttttct gcaaccagga cctgaactac tgcactcacc acaagccatg caagaatggt	1200
gccacatgca ccaacaccgg tcaggggagc tacacttggt cttgccgacc tgggtacaca	1260
ggctccagct gcgagattga aatcaacgaa tgtgatgcca acccttgcaa gaatggtgga	1320
agctgcacgg atctcgagaa cagctattcc tgtacctgcc ccccaggctt ctatggtaaa	1380
aactgtgagc tgagtgcaat gacttggtgt gatggaccgt gcttcaatgg agggcgatgc	1440
actgacaacc ctgatggtgg atacagctgc cgctgcccac tgggttattc tgggttcaac	1500
tgtgaaaaga aaatcgatta ctgcagttcc agcccttggt ctaatggagc ccagtgcgtt	1560
gacctgggga actcctacat atgccagtgc caggctgggt tcaactggcag gcaactgtgac	1620
gacaacgtgg acgattgcgc ctccctcccc tgcgtcaatg gagggacctg tcaggatggg	1680
gtcaacgact actcctgcac ctgccccccg ggatacaacg ggaagaactg cagcacgccg	1740
gtgagcagat gcgagcaciaa cccctgccac aatggggcca cctgccacga gagaagcaac	1800
cgctacgtgt gcgagtgcgc tcggggctac ggcggcctca actgccagtt cctgctcccc	1860
gagccacctc agggggccgt catcggtgac ttcaccgaga agtacacaga gggccagaac	1920
agccagtttc cctggatcgc agtgtgcgcc gggattattc tggctcctcat gctgctgctg	1980
ggttgccgcc ccatcgctgt ctgcgtcagg ctgaagggtgc agaagaggca ccaccagccc	2040
gaggcctgca ggagtgaac ggagaccatg aacaacctgg cgaactgcca gcgcgagaag	2100
gacatctcca tcagcgtcat cggtgccact cagattaaaa acacaaataa gaaagtagac	2160
tttcacagcg ataactccga taaaaacggc tacaaagtta gatacccatc agtggattac	2220
aatttggtgc atgaactcaa gaatgaggac tctgtgaaag aggagcatgg caaatgcgaa	2280
gccaagtgtg aaacgtatga ttcagaggca gaagagaaaa gcgcagtaca gctaaaaagt	2340
agtgacactt ctgaaagaaa acggccagat tcagtatatt ccacttcaaa ggacacaaaag	2400
taccagtccg tgtacgtcat atcagaagag aaagatgagt gcatcatagc aactgaggtt	2460
agtatccac ctggcagtcg gacaagtctt ggtgtgtgat tcccatccag cgcaggtcag	2520
ggcggccaaa ccattctacc tgctgccaca gtcactctgta cccaatgaaa actggccacc	2580
ttcagttctgt ggcaactgcag acgttgaaaa aacttggtgt ggattaacat aagctccagt	2640
gggggttaca gggacagcaa tttttgcagg caagggtata actgtagtgc agttgtagct	2700
tactaacctt actgactcat tctttcgtgt gcttctgca gagcctgttt ttgcttgga	2760
ttgaggtgaa gtccctgaccc tctgcaccc ctatagtcctc tgctttcttt ttattaacct	2820

cttctgggtct ctgcttgtgt tttctctcaa cagggtgtaaa acagacgtga cgtggcaaag 2880

ctt 2883

<210> 11

<211> 728

<212> PRT

<213> Gallus sp.

<400> 11

Met Gly Gly Arg Phe Leu Leu Thr Leu Ala Leu Leu Ser Ala Leu Leu
1 5 10 15

Cys Arg Cys Gln Val Asp Gly Ser Gly Val Phe Glu Leu Lys Leu Gln
20 25 30

Glu Phe Val Asn Lys Lys Gly Leu Leu Ser Asn Arg Asn Cys Cys Arg
35 40 45

Gly Gly Gly Pro Gly Gly Ala Gly Gln Gln Gln Cys Asp Cys Lys Thr
50 55 60

Phe Phe Arg Val Cys Leu Lys His Tyr Gln Ala Ser Val Ser Pro Glu
65 70 75 80

Pro Pro Cys Thr Tyr Gly Ser Ala Ile Thr Pro Val Leu Gly Ala Asn
85 90 95

Ser Phe Ser Val Pro Asp Gly Ala Gly Gly Ala Asp Pro Ala Phe Ser
100 105 110

Asn Pro Ile Arg Phe Pro Phe Gly Phe Thr Trp Pro Gly Thr Phe Ser
115 120 125

Leu Ile Ile Glu Ala Leu His Thr Asp Ser Pro Asp Asp Leu Thr Thr
130 135 140

Glu Asn Pro Glu Arg Leu Ile Ser Arg Leu Ala Thr Gln Arg His Leu
145 150 155 160

Ala Val Gly Glu Glu Trp Ser Gln Asp Leu His Ser Ser Gly Arg Thr
165 170 175

Asp Leu Lys Tyr Ser Tyr Arg Phe Val Cys Asp Glu His Tyr Tyr Gly

180	185	190
Glu Gly Cys Ser Val Phe Cys Arg Pro Arg Asp Asp Arg Phe Gly His		
195	200	205
Phe Thr Cys Gly Glu Arg Gly Glu Lys Val Cys Asn Pro Gly Trp Lys		
210	215	220
Gly Gln Tyr Cys Thr Glu Pro Ile Cys Leu Pro Gly Cys Asp Glu Gln		
225	230	235
His Gly Phe Cys Asp Lys Pro Gly Glu Cys Lys Cys Arg Val Gly Trp		
245	250	255
Gln Gly Arg Tyr Cys Asp Glu Cys Ile Arg Tyr Pro Gly Cys Leu His		
260	265	270
Gly Thr Cys Gln Gln Pro Trp Gln Cys Asn Cys Gln Glu Gly Trp Gly		
275	280	285
Gly Leu Phe Cys Asn Gln Asp Leu Asn Tyr Cys Thr His His Lys Pro		
290	295	300
Cys Lys Asn Gly Ala Thr Cys Thr Asn Thr Gly Gln Gly Ser Tyr Thr		
305	310	315
Cys Ser Cys Arg Pro Gly Tyr Thr Gly Ser Ser Cys Glu Ile Glu Ile		
325	330	335
Asn Glu Cys Asp Ala Asn Pro Cys Lys Asn Gly Gly Ser Cys Thr Asp		
340	345	350
Leu Glu Asn Ser Tyr Ser Cys Thr Cys Pro Pro Gly Phe Tyr Gly Lys		
355	360	365
Asn Cys Glu Leu Ser Ala Met Thr Cys Ala Asp Gly Pro Cys Phe Asn		
370	375	380
Gly Gly Arg Cys Thr Asp Asn Pro Asp Gly Gly Tyr Ser Cys Arg Cys		
385	390	395
Pro Leu Gly Tyr Ser Gly Phe Asn Cys Glu Lys Lys Ile Asp Tyr Cys		
405	410	415

Ser Ser Ser Pro Cys Ala Asn Gly Ala Gln Cys Val Asp Leu Gly Asn
420 425 430

Ser Tyr Ile Cys Gln Cys Gln Ala Gly Phe Thr Gly Arg His Cys Asp
435 440 445

Asp Asn Val Asp Asp Cys Ala Ser Phe Pro Cys Val Asn Gly Gly Thr
450 455 460

Cys Gln Asp Gly Val Asn Asp Tyr Ser Cys Thr Cys Pro Pro Gly Tyr
465 470 475 480

Asn Gly Lys Asn Cys Ser Thr Pro Val Ser Arg Cys Glu His Asn Pro
485 490 495

Cys His Asn Gly Ala Thr Cys His Glu Arg Ser Asn Arg Tyr Val Cys
500 505 510

Glu Cys Ala Arg Gly Tyr Gly Gly Leu Asn Cys Gln Phe Leu Leu Pro
515 520 525

Glu Pro Pro Gln Gly Pro Val Ile Val Asp Phe Thr Glu Lys Tyr Thr
530 535 540

Glu Gly Gln Asn Ser Gln Phe Pro Trp Ile Ala Val Cys Ala Gly Ile
545 550 555 560

Ile Leu Val Leu Met Leu Leu Leu Gly Cys Ala Ala Ile Val Val Cys
565 570 575

Val Arg Leu Lys Val Gln Lys Arg Lys Lys Gln Pro Glu Ala Cys Arg
580 585 590

Ser Glu Thr Glu Thr Met Asn Asn Leu Ala Asn Cys Gln Arg Glu Lys
595 600 605

Asp Ile Ser Ile Ser Val Ile Gly Ala Thr Gln Ile Lys Asn Thr Asn
610 615 620

Lys Lys Val Asp Phe His Ser Asp Asn Ser Asp Lys Asn Gly Tyr Lys
625 630 635 640

Val Arg Tyr Pro Ser Val Asp Tyr Asn Leu Val His Glu Leu Lys Asn
645 650 655

Glu Asp Ser Val Lys Glu Glu His Gly Lys Cys Glu Ala Lys Cys Glu
660 665 670

Thr Tyr Asp Ser Glu Ala Glu Glu Lys Ser Ala Val Gln Leu Lys Ser
675 680 685

Ser Asp Thr Ser Glu Arg Lys Arg Pro Asp Ser Val Tyr Ser Thr Ser
690 695 700

Lys Asp Thr Lys Tyr Gln Ser Val Tyr Val Ile Ser Glu Glu Lys Asp
705 710 715 720

Glu Cys Ile Ile Ala Thr Glu Val
725

<210> 12
<211> 721
<212> PRT
<213> Xenopus sp.

<400> 12

Met Gly Gln Gln Arg Met Leu Thr Leu Leu Val Leu Ser Ala Val Leu
1 5 10 15

Cys Gln Ile Ser Cys Ser Gly Leu Phe Glu Leu Arg Leu Gln Glu Phe
20 25 30

Val Asn Lys Lys Gly Leu Leu Gly Asn Met Asn Cys Cys Arg Pro Gly
35 40 45

Ser Leu Ala Ser Leu Gln Arg Cys Glu Cys Lys Thr Phe Phe Arg Ile
50 55 60

Cys Leu Lys His Tyr Gln Ser Asn Val Ser Pro Glu Pro Pro Cys Thr
65 70 75 80

Tyr Gly Gly Ala Val Thr Pro Val Leu Gly Thr Asn Ser Phe Val Val
85 90 95

Pro Glu Ser Ser Asn Ala Asp Pro Thr Phe Ser Asn Pro Ile Arg Phe

100	105	110
Pro Phe Gly Phe Thr Trp	Pro Gly Thr Phe Ser Leu	Ile Ile Glu Ala
115	120	125
Ile His Ala Asp Ser Ala	Asp Asp Leu Asn Thr	Glu Asn Pro Glu Arg
130	135	140
Leu Ile Ser Arg Leu Ala	Thr Gln Arg His Leu Thr	Val Gly Glu Gln
145	150	155
160		
Trp Ser Gln Asp Leu His	Ser Ser Asp Arg Thr	Glu Leu Lys Tyr Ser
165	170	175
Tyr Arg Phe Val Cys Asp	Glu Tyr Tyr Tyr Gly	Glu Gly Cys Ser Asp
180	185	190
Tyr Cys Arg Pro Arg Asp	Asp Ala Phe Gly His	Phe Ser Cys Gly Glu
195	200	205
Lys Gly Glu Lys Leu Cys	Asn Pro Gly Trp Lys	Gly Leu Tyr Cys Thr
210	215	220
Glu Pro Ile Cys Leu Pro	Gly Cys Asp Glu His	His Gly Tyr Cys Asp
225	230	235
240		
Lys Pro Gly Glu Cys Lys	Cys Arg Val Gly Trp	Gln Gly Arg Tyr Cys
245	250	255
Asp Glu Cys Ile Arg Tyr	Pro Gly Cys Leu His	Gly Thr Cys Gln Gln
260	265	270
Pro Trp Gln Cys Asn Cys	Gln Glu Gly Trp Gly	Gly Leu Phe Cys Asn
275	280	285
Gln Asp Leu Asn Tyr Cys	Thr His His Lys Pro	Cys Glu Asn Gly Ala
290	295	300
Thr Cys Thr Asn Thr Gly	Gln Gly Ser Tyr Thr	Cys Ser Cys Arg Pro
305	310	315
320		
Gly Tyr Thr Gly Ser Asn	Cys Glu Ile Glu Val	Asn Glu Cys Asp Ala
325	330	335

Asn Pro Cys Lys Asn Gly Gly Ser Cys Ser Asp Leu Glu Asn Ser Tyr
340 345 350

Thr Cys Ser Cys Pro Pro Gly Phe Tyr Gly Lys Asn Cys Glu Leu Ser
355 360 365

Ala Met Thr Cys Ala Asp Gly Pro Cys Phe Asn Gly Gly Arg Cys Ala
370 375 380

Asp Asn Pro Asp Gly Gly Tyr Ile Cys Phe Cys Pro Gly Val Tyr Ser
385 390 395 400

Gly Phe Asn Cys Glu Lys Lys Ile Asp Tyr Cys Ser Ser Asn Pro Cys
405 410 415

Ala Asn Gly Ala Arg Cys Glu Asp Leu Gly Asn Ser Tyr Ile Cys Gln
420 425 430

Cys Gln Glu Gly Phe Ser Gly Arg Asn Cys Asp Asp Asn Leu Asp Asp
435 440 445

Cys Thr Ser Phe Pro Cys Gln Asn Gly Gly Thr Cys Gln Asp Gly Ile
450 455 460

Asn Asp Tyr Ser Cys Thr Cys Pro Pro Gly Tyr Ile Gly Lys Asn Cys
465 470 475 480

Ser Met Pro Ile Thr Lys Cys Glu His Asn Pro Cys His Asn Gly Ala
485 490 495

Thr Cys His Glu Arg Asn Asn Arg Tyr Val Cys Gln Cys Ala Arg Gly
500 505 510

Tyr Gly Gly Asn Asn Cys Gln Phe Leu Leu Pro Glu Glu Lys Pro Val
515 520 525

Val Val Asp Leu Thr Glu Lys Tyr Thr Glu Gly Gln Ser Gly Gln Phe
530 535 540

Pro Trp Ile Ala Val Cys Ala Gly Ile Val Leu Val Leu Met Leu Leu
545 550 555 560

Leu Gly Cys Ala Ala Val Val Val Cys Val Arg Val Arg Val Gln Lys
565 570 575

Arg Arg His Gln Pro Glu Ala Cys Arg Gly Glu Ser Lys Thr Met Asn
580 585 590

Asn Leu Ala Asn Cys Gln Arg Glu Lys Asp Ile Ser Val Ser Phe Ile
595 600 605

Gly Thr Thr Gln Ile Lys Asn Thr Asn Lys Lys Ile Asp Phe Leu Ser
610 615 620

Glu Ser Asn Asn Glu Lys Asn Gly Tyr Lys Pro Arg Tyr Pro Ser Val
625 630 635 640

Asp Tyr Asn Leu Val His Glu Leu Lys Asn Glu Asp Ser Pro Lys Glu
645 650 655

Glu Arg Ser Lys Cys Glu Ala Lys Cys Ser Ser Asn Asp Ser Asp Ser
660 665 670

Glu Asp Val Asn Ser Val His Ser Lys Arg Asp Ser Ser Glu Arg Arg
675 680 685

Arg Pro Asp Ser Ala Tyr Ser Thr Ser Lys Asp Thr Lys Tyr Gln Ser
690 695 700

Val Tyr Val Ile Ser Asp Glu Lys Asp Glu Cys Ile Ile Ala Thr Glu
705 710 715 720

Val

<210> 13
<211> 2692
<212> DNA
<213> Mus sp.

<400> 13
ctgcaggaat tcsmycgcat gctcccggcc gccatgggccc gtcggagcgc gctagccctt 60
gccgtgggtct ctgccctgct gtgccaggtc tggagctccg gcgtatttga gctgaagctg 120
caggagtctg tcaacaagaa ggggctgctg gggaaccgca actgctgccg cgggggctct 180

ggccccgctt ggcctgcag gaccttcttt cgcgtatgcc tcaagcacta ccaggccagc	240
gtgtcaccgg agccaccctg cacctacggc agtgccgtca cgccagtgtt ggggtgtcgc	300
tccttcagcc tgctgatgg cgcaggcatc gaccccgct tcagcaacct catccgattc	360
cccttcggct tcacctggcc aggtaccttc tctctgatca ttgaagccct ccatacagac	420
tctcccgatg acctcgcaac agaaaaccca gaaagactca tcagccgcct gaccacacag	480
aggcacctca ctgtgggaga agaattggtct caggaccttc acagtagcgg ccgcacagac	540
ctccggtact cttaccggtt tgtgtgtgac gagcactact acggagaagg ttgctctgtg	600
ttctgccgac ctcgggatga cgcctttggc cacttcacct gcggggacag aggggagaag	660
atgtgcgacc ctggctggaa aggccagtac tgcactgacc caatctgtct gccagggtgt	720
gatgaccaac atggatactg tgacaaacca ggggagtgc aagtgcagagt tggctggcag	780
ggccgctact gcgatgagt catccgatac ccaggttgtc tccatggcac ctgccagcaa	840
ccctggcagt gtaactgcc ggaaggctgg gggggccttt tctgcaacca agacctgaac	900
tactgtactc accataagcc gtgcaggaat ggagccacct gcaccaaac gggccagggg	960
agctacacat gttcctgccg acctgggtat acagggtgcca actgtgagct ggaagtagat	1020
gagtgtgtc ctagccctg caagaacgga gcgagctgca cggaccttga ggacagcttc	1080
tcttgacct gccctccgg cttctatggc aaggctctgtg agctgagcgc catgacctgt	1140
gcagatggcc cttgcttcaa tggaggacga tgttcagata accctgacgg aggctacacc	1200
tgccattgcc ccttgggctt ctctggcttc aactgtgaga agaagatgga tctctgcggc	1260
tcttccccctt gttctaacgg tgccaagtgt gtggacctcg gcaactctta cctgtgccgg	1320
tgccaggctg gcttctccgg gaggtactgc gaggacaatg tggatgactg tgctctctcc	1380
ccgtgtgcaa atgggggcac ctgccgggac agtgtgaacg acttctctctg tacctgcccc	1440
cctggctaca cgggcaagaa ctgcagcgcc cctgtcagca ggtgtgagca tgcacctgc	1500
cataatgggg ccacctgcca ccagaggggc cagcgctaca tgtgtgagtg cgcccagggc	1560
tatggcggcc ccaactgcca gtttctgtc cctgagccac caccagggcc catggtggtg	1620
gacctcagt agaggcatat ggagagccag ggcgggacct tcccctgggt ggccgtgtgt	1680
gccggggtgg tgcttgtct cctgctgtgt ctgggctgtg ctgctgtggt ggtctgcgtc	1740
cggctgaagc tacagaaaca ccagcctcca cctgaacct gtgggggaga gacagaaacc	1800
atgaacaacc tagccaattg ccagcgcgag aaggacgttt ctgttagcat cattggggct	1860
accagatca agaacaccaa caagaaggcg gactttcacg gggaccatgg agccgagaag	1920

agcagcttta aggtccgata cccactgtg gactataacc tcgttcgaga cctcaaggga 1980
 gatgaagcca cggtcaggga tacacacagc aaacgtgaca ccaagtgcca gtcacagagc 2040
 tctgcaggag aagagaagat cgccccaaca cttaggggtg gggagattcc tgacagaaaa 2100
 aggccagagt ctgtctactc tacttcaaag gacaccaagt accagtcggt gtatgttctg 2160
 tctgcagaaa aggatgagtg tgttatagcg actgaggtgt aagatggaag cgatgtggca 2220
 aaattcccat ttctcttaaa taaaattcca aggatatagc cccgatgaat gctgctgaga 2280
 gaggaaggga gaggaaaccc agggactgct gctgagaacc aggttcaggc gaacgtgggt 2340
 ctctcagagt tagcagaggc gcccgaact gccagcctag gctttggctg ccgctggact 2400
 gcctgctggt tggtccatt gcactatgga cagttgcttt gaagagtata tatttaaagt 2460
 gacgagtgc ttgattcata taggaagcac gcactgcca cacgtctatc ttggattact 2520
 atgagccagt ctttccttga actagaaaca caactgcctt tattgtcctt ttgatactg 2580
 agatgtgttt ttttttttc ctagacggga aaaagaaaac gtgtgttatt ttttttggga 2640
 tttgtaaaaa tatttttcat gattatggga gagctcccaa cgcgttgag gt 2692

<210> 14
 <211> 722
 <212> PRT
 <213> Mus sp.

<400> 14

Met Gly Arg Arg Ser Ala Leu Ala Leu Ala Val Val Ser Ala Leu Leu
 1 5 10 15

Cys Gln Val Trp Ser Ser Gly Val Phe Glu Leu Lys Leu Gln Glu Phe
 20 25 30

Val Asn Lys Lys Gly Leu Leu Gly Asn Arg Asn Cys Cys Arg Gly Gly
 35 40 45

Ser Gly Pro Pro Cys Ala Cys Arg Thr Phe Phe Arg Val Cys Leu Lys
 50 55 60

His Tyr Gln Ala Ser Val Ser Pro Glu Pro Pro Cys Thr Tyr Gly Ser
 65 70 75 80

Ala Val Thr Pro Val Leu Gly Val Asp Ser Phe Ser Leu Pro Asp Gly
 85 90 95

Ala Gly Ile Asp Pro Ala Phe Ser Asn Pro Ile Arg Phe Pro Phe Gly
 100 105 110

Phe Thr Trp Pro Gly Thr Phe Ser Leu Ile Ile Glu Ala Leu His Thr
 115 120 125

Asp Ser Pro Asp Asp Leu Ala Thr Glu Asn Pro Glu Arg Leu Ile Ser
 130 135 140

Arg Leu Thr Thr Gln Arg His Leu Thr Val Gly Glu Glu Trp Ser Gln
 145 150 155 160

Asp Leu His Ser Ser Gly Arg Thr Asp Leu Arg Tyr Ser Tyr Arg Phe
 165 170 175

Val Cys Asp Glu His Tyr Tyr Gly Glu Gly Cys Ser Val Phe Cys Arg
 180 185 190

Pro Arg Asp Asp Ala Phe Gly His Phe Thr Cys Gly Asp Arg Gly Glu
 195 200 205

Lys Met Cys Asp Pro Gly Trp Lys Gly Gln Tyr Cys Thr Asp Pro Ile
 210 215 220

Cys Leu Pro Gly Cys Asp Asp Gln His Gly Tyr Cys Asp Lys Pro Gly
 225 230 235 240

Glu Cys Lys Cys Arg Val Gly Trp Gln Gly Arg Tyr Cys Asp Glu Cys
 245 250 255

Ile Arg Tyr Pro Gly Cys Leu His Gly Thr Cys Gln Gln Pro Trp Gln
 260 265 270

Cys Asn Cys Gln Glu Gly Trp Gly Gly Leu Phe Cys Asn Gln Asp Leu
 275 280 285

Asn Tyr Cys Thr His His Lys Pro Cys Arg Asn Gly Ala Thr Cys Thr
 290 295 300

Asn Thr Gly Gln Gly Ser Tyr Thr Cys Ser Cys Arg Pro Gly Tyr Thr
 305 310 315 320

Gly Ala Asn Cys Glu Leu Glu Val Asp Glu Cys Ala Pro Ser Pro Cys
 325 330 335

Lys Asn Gly Ala Ser Cys Thr Asp Leu Glu Asp Ser Phe Ser Cys Thr
 340 345 350

Cys Pro Pro Gly Phe Tyr Gly Lys Val Cys Glu Leu Ser Ala Met Thr
 355 360 365

Cys Ala Asp Gly Pro Cys Phe Asn Gly Gly Arg Cys Ser Asp Asn Pro
 370 375 380

Asp Gly Gly Tyr Thr Cys His Cys Pro Leu Gly Phe Ser Gly Phe Asn
 385 390 395 400

Cys Glu Lys Lys Met Asp Leu Cys Gly Ser Ser Pro Cys Ser Asn Gly
 405 410 415

Ala Lys Cys Val Asp Leu Gly Asn Ser Tyr Leu Cys Arg Cys Gln Ala
 420 425 430

Gly Phe Ser Gly Arg Tyr Cys Glu Asp Asn Val Asp Asp Cys Ala Ser
 435 440 445

Ser Pro Cys Ala Asn Gly Gly Thr Cys Arg Asp Ser Val Asn Asp Phe
 450 455 460

Ser Cys Thr Cys Pro Pro Gly Tyr Thr Gly Lys Asn Cys Ser Ala Pro
 465 470 475 480

Val Ser Arg Cys Glu His Ala Pro Cys His Asn Gly Ala Thr Cys His
 485 490 495

Gln Arg Gly Gln Arg Tyr Met Cys Glu Cys Ala Gln Gly Tyr Gly Gly
 500 505 510

Pro Asn Cys Gln Phe Leu Leu Pro Glu Pro Pro Pro Gly Pro Met Val
 515 520 525

Val Asp Leu Ser Glu Arg His Met Glu Ser Gln Gly Gly Pro Phe Pro
 530 535 540

Trp Val Ala Val Cys Ala Gly Val Val Leu Val Leu Leu Leu Leu Leu
 545 550 555 560

Gly Cys Ala Ala Val Val Val Cys Val Arg Leu Lys Leu Gln Lys His
 565 570 575

Gln Pro Pro Pro Glu Pro Cys Gly Gly Glu Thr Glu Thr Met Asn Asn
 580 585 590

Leu Ala Asn Cys Gln Arg Glu Lys Asp Val Ser Val Ser Ile Ile Gly
 595 600 605

Ala Thr Gln Ile Lys Asn Thr Asn Lys Lys Ala Asp Phe His Gly Asp
 610 615 620

His Gly Ala Glu Lys Ser Ser Phe Lys Val Arg Tyr Pro Thr Val Asp
 625 630 635 640

Tyr Asn Leu Val Arg Asp Leu Lys Gly Asp Glu Ala Thr Val Arg Asp
 645 650 655

Thr His Ser Lys Arg Asp Thr Lys Cys Gln Ser Gln Ser Ser Ala Gly
 660 665 670

Glu Glu Lys Ile Ala Pro Thr Leu Arg Gly Gly Glu Ile Pro Asp Arg
 675 680 685

Lys Arg Pro Glu Ser Val Tyr Ser Thr Ser Lys Asp Thr Lys Tyr Gln
 690 695 700

Ser Val Tyr Val Leu Ser Ala Glu Lys Asp Glu Cys Val Ile Ala Thr
 705 710 715 720

Glu Val

<210> 15
 <211> 525
 <212> DNA
 <213> Homo sapiens

<400> 15
 tacgatgaay aacctggcga actgccagcg tcagaaggac atctcagtca gcatcatcgg 60
 ggcyacgtca gatcargaac accaacaaga aggcggactt ymcascgggg gaccasagcg 120

tcgcacaaga atggmtttca aggcyygcta cccagcgtg gactataact cgtgcaggac	180
ctcaaggggtg acgacaccgc cgtcaggacg tcgcacagca agcgtgacac caagtgccag	240
tccccaggct cctcaggag gagaaagggga ccccgaccac actcaggggk tgcgtgctgc	300
gggccgggct caggaggggg tacctggggg gtgtcttctt ggaaccactg ctccgtttct	360
cttcccaaatt gttctcatgc attcattgtg gatcttctct attttcttt tagtggagaa	420
gcatctgaaa gaaaaaggcc ggactcgggc tgttcaactt caaaagacac caagtaccag	480
tcggtgtacg tcatatccga ggagaaggac gaggcgtca tcgca	525

<210> 16
 <211> 1981
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (559)..(559)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (678)..(678)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (689)..(689)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (1246)..(1246)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (1287)..(1287)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (1492)..(1492)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (1524)..(1524)
 <223> n is a, c, g, or t

<220>

<221> misc_feature
<222> (1569)..(1569)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (1621)..(1621)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (1656)..(1656)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (1738)..(1738)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (1857)..(1857)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (1861)..(1861)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (1876)..(1876)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (1888)..(1888)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (1899)..(1899)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (1917)..(1917)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (1925)..(1925)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (1931)..(1931)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (1935)..(1935)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (1942)..(1943)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (1952)..(1954)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (1968)..(1968)

<223> n is a, c, g, or t

<400> 16

cattgggtac gggccccct cgaggctgac ggtatcgata agcttgatat cgaattccgg	60
cttcacctgg ccgggcacct tctctctgat tattgaagct ctccacacag attctcctga	120
tgacctcgca acagaaaacc cagaaagact catcagccgc ctggccaccc agaggcacct	180
gacggtgggc gaggagtggc cccaggacct gcacagcagc ggccgcacgg acctcaagta	240
ctcctaccgc ttcgtgtgtg acgaacacta ctacggagag ggctgctccg ttttctgccg	300
tccccgggac gatgccttcg gccacttcac ctgtggggag cgtggggaga aagtgtgcaa	360
ccctggctgg aaagggccct actgcacaga gccgatctgc ctgcctggat gtgatgagca	420
gcatggattt tgtgacaaac cagcccaatg caagtgcaga gtgggctggc agggccggta	480
ctgtgacgag tgtatccgct atccaggctg tctccatggc acctgccagc agccctggca	540
gtgcaactgc caggaaggnt gggggggcct tttctgcaac caggacctga actactgcac	600
acaccataag ccctgcaaga atcgagccac ctgcaacaaa cacgggccag ggggagctac	660
acttggctct tggccggnct ggggtacana gggtgccacc tgcgaagctt ggggattgga	720
cgagttgttg accccagccc ttggttaaga cggagggagc ttgacggatc ttcggagaac	780
agctactcct gtacctgccc acccggcttc tacggcaaaa tctgtgaatt gagtgccatg	840
acctgtgcgg acggcccttg ctttaacggg ggtcgggtgct cagacagccc cgatggaggg	900
tacagctgcc gctgccccgt gggctactcc ggcttcaact gtgagaagaa aattgactac	960
tgcagctctt caccctgttc taatggtgcc aagtgtgtgg acctcgggtga tgcctacctg	1020

tgccgctgcc aggccggctt ctcggggagg cactgtgacg acaacgtgga cgactgcgcc 1080
 tcctccccgt gcgccaacgg gggcacctgc cgggatggcg tgaacgactt ctctgcacc 1140
 tgcccgcctg gctacacggg caggaaactgc agtgcctccg ccagcagggtg cgagcacgca 1200
 ccctgccaca atggggccac ctgccacgag agggggccacc gctatntgtg cgagtgtgcc 1260
 cgaagctacg ggggtcccaa ctgccanttc ctgctccccg aaactgcccc cccggcccca 1320
 cgggtggtgga aactccccta aaaaaaccta aaagggccgg ggggggcca tccccttgg 1380
 ggacgtgtgc gccgggggtca tccttgtcct catgctgctg ctgggctgtc ccgctgtgg 1440
 ggtctgcgtc cggctgaggc tgcagaagca ccggcccca gccgaccct gncgggggga 1500
 gacggagacc atgaacaacc tggncaaactg ccagcgtgag aaggacatct cagtcagcat 1560
 catcggggnc acgcagatca agaaccacaa caagaaggcg gacttccacg gggaccacag 1620
 ngccgacaag aatggcttca agggccgcta ccagnggtg gactataacc tcgtgcagga 1680
 cctcaagggt gacgacaccg ccgtcaggga cgcgcacagc aagcgtgaca ccaagtgnca 1740
 gcccagggc tcctcagggg aggagaaggg gacccccgac ccacactcag ggggtggagg 1800
 aagcatcttg aaagaaaaag gccggacttc gggcttggtc aactttcaaa agacaancaa 1860
 ngtacaagtc ggtgtncgtc atttccgnag gaggaaggnt gactgcgtca taggaantt 1920
 aggtngtaaa ntggnagttg annttgaaa gnnntcccc gattcccntt tcaaagtttt 1980
 t 1981

<210> 17
 <211> 192
 <212> PRT
 <213> Homo sapiens

<400> 17

Gly Phe Thr Trp Pro Gly Thr Phe Ser Leu Ile Ile Glu Ala Leu His
 1 5 10 15

Thr Asp Ser Pro Asp Asp Leu Ala Thr Glu Asn Pro Glu Arg Leu Ile
 20 25 30

Ser Arg Leu Ala Thr Gln Arg His Leu Thr Val Gly Glu Glu Trp Ser
 35 40 45

Gln Asp Leu His Ser Ser Gly Arg Thr Asp Leu Lys Tyr Ser Tyr Arg
 50 55 60

Phe Val Cys Asp Glu His Tyr Tyr Gly Glu Gly Cys Ser Val Phe Cys
65 70 75 80

Arg Pro Arg Asp Asp Ala Phe Gly His Phe Thr Cys Gly Glu Arg Gly
85 90 95

Glu Lys Val Cys Asn Pro Gly Trp Lys Gly Pro Tyr Cys Thr Glu Pro
100 105 110

Ile Cys Leu Pro Gly Cys Asp Glu Gln His Gly Phe Cys Asp Lys Pro
115 120 125

Gly Glu Cys Lys Cys Arg Val Gly Trp Gln Gly Arg Tyr Cys Asp Glu
130 135 140

Cys Ile Arg Tyr Pro Gly Cys Leu His Gly Thr Cys Gln Gln Pro Trp
145 150 155 160

Gln Cys Asn Cys Gln Glu Gly Trp Gly Gly Leu Phe Cys Asn Gln Asp
165 170 175

Leu Asn Tyr Cys Thr His His Lys Pro Cys Lys Asn Gly Ala Thr Cys
180 185 190

<210> 18
<211> 6
<212> PRT
<213> Homo sapiens

<300>
<310> WO 9701571 Fig 14
<312> 1997-01-16

<400> 18

Thr Asn Thr Gly Gln Gly
1 5

<210> 19
<211> 9
<212> PRT
<213> Homo sapiens

<400> 19

Lys Asn Gly Gly Ser Leu Thr Asp Leu
1 5

<210> 20
 <211> 157
 <212> PRT
 <213> Homo sapiens

<400> 20

Glu Asn Ser Tyr Ser Cys Thr Cys Pro Pro Gly Phe Tyr Gly Lys Ile
 1 5 10 15

Cys Glu Leu Ser Ala Met Thr Cys Ala Asp Gly Pro Cys Phe Asn Gly
 20 25 30

Gly Arg Cys Ser Asp Ser Pro Asp Gly Gly Tyr Ser Cys Arg Cys Pro
 35 40 45

Val Gly Tyr Ser Gly Phe Asn Cys Glu Lys Lys Ile Asp Tyr Cys Ser
 50 55 60

Ser Ser Pro Cys Ser Asn Gly Ala Lys Cys Val Asp Leu Gly Asp Ala
 65 70 75 80

Tyr Leu Cys Arg Cys Gln Ala Gly Phe Ser Gly Arg His Cys Asp Asp
 85 90 95

Asn Val Asp Asp Cys Ala Ser Ser Pro Cys Ala Asn Gly Gly Thr Cys
 100 105 110

Arg Asp Gly Val Asn Asp Phe Ser Cys Thr Cys Pro Pro Gly Tyr Thr
 115 120 125

Gly Arg Asn Cys Ser Ala Pro Ala Ser Arg Cys Glu His Ala Pro Cys
 130 135 140

His Asn Gly Ala Thr Cys His Glu Arg Gly His Arg Tyr
 145 150 155

<210> 21
 <211> 12
 <212> PRT
 <213> Homo sapiens

<400> 21

Cys Glu Cys Ala Arg Ser Tyr Gly Gly Pro Asn Cys

1 5 10

<210> 22
<211> 5
<212> PRT
<213> Homo sapiens

<400> 22

Phe Leu Leu Pro Glu
1 5

<210> 23
<211> 4
<212> PRT
<213> Homo sapiens

<400> 23

Pro Pro Gly Pro
1

<210> 24
<211> 25
<212> PRT
<213> Homo sapiens

<400> 24

Leu Leu Leu Gly Cys Ala Ala Val Val Val Cys Val Arg Leu Arg Leu
1 5 10 15

Gln Lys His Arg Pro Pro Ala Asp Pro
20 25

<210> 25
<211> 10
<212> PRT
<213> Homo sapiens

<400> 25

Arg Gly Glu Thr Glu Thr Met Asn Asn Leu
1 5 10

<210> 26
<211> 14
<212> PRT
<213> Homo sapiens

<400> 26

Asn Cys Gln Arg Glu Lys Asp Ile Ser Val Ser Ile Ile Gly
1 5 10

<210> 27
<211> 16
<212> PRT
<213> Homo sapiens

<400> 27

Thr Gln Ile Lys Asn Thr Asn Lys Lys Ala Asp Phe His Gly Asp His
1 5 10 15

<210> 28
<211> 11
<212> PRT
<213> Homo sapiens

<400> 28

Ala Asp Lys Asn Gly Phe Lys Ala Arg Tyr Pro
1 5 10

<210> 29
<211> 26
<212> PRT
<213> Homo sapiens

<400> 29

Val Asp Tyr Asn Leu Val Gln Asp Leu Lys Gly Asp Asp Thr Ala Val
1 5 10 15

Arg Asp Ala His Ser Lys Arg Asp Thr Lys
20 25

<210> 30
<211> 13
<212> PRT
<213> Homo sapiens

<400> 30

Gln Pro Gln Gly Ser Ser Gly Glu Glu Lys Gly Thr Pro
1 5 10

<210> 31
<211> 4
<212> PRT
<213> Homo sapiens

<400> 31

Pro Thr Leu Arg
1

<210> 32

<211> 4

<212> PRT

<213> Homo sapiens

<400> 32

Arg Lys Arg Pro
1
